

PROF. G. V. BLACK,

FIRST RECIPIENT OF FELLOWSHIP AND GOLD MEDAL AWARDED BY THE NEW YORK STATE DENTAL SOCIETY.



Highest Orthodontia. Facial Beauty 1st, Dental Antagonism 2d.

By JOHN NUTTING FARRAR, M.D., D.D.S., New York City.

(Lecture delivered before the New York Dental College Alumni, Jan. 18, 1905.)

No. III.

(Continued from page 341.)

Harmony Between the Dental Arches and Facial Features.

In any of this class of operations, harmony between form, and size of the dental arches, and that of the possible future form of the face of the child patient, is of utmost importance; this is necessary in order to accomplish the highest possibilities for the patient's best future personal interests, but this point will not be dwelt upon.

As perfect beauty is inherited, or acquired, and all persons are susceptible to beauty, it is natural for all to desire to be as free from deformity as possible, therefore, between the utilitarian aspect (dental antagonism) and beauty of facial features, lies the object sought by all applicants.

Seldom do persons seek the dentist's services purely for the former (mastication of food), but they do often seek it purely for the latter (beauty). Therefore, in the treatment for correction of irregular teeth, the first aim should be to establish a change in their arrangement with the view to cause the highest improvement in the face, not only, as before said, in facial outline, but also in the intellectual expression, shown in and

ITEMS OF INTEREST

through the facial outline. As Bacon said, "The best part of beauty is that which no picture can express;" this part is the one to which I refer. Incongruity between a too broad dental arch in a narrow face, is no less a defect than a too narrow arch in a broad face. Both cause a weakness of intellectual expression. Unless there is harmony between the dental arches and the size of the face, as a whole, the accomplishment simply of perfect antagonism cannot be regarded all that is for the patient's good. To so regulate teeth, that the moulding will bring out the intellectual scintillations through the smiling wrinkles in the lower half of the face, balancing it with the wrinkles about the eyes, is high art. The former of these results (perfect antagonism) may be accomplished without the latter (beauty). To kill out the intellectual fire by causing a blank face, often gross, and an expression of "all teeth" with the cuspids standing too far apart, stretching the skin so as to kill the finer emotional expressions about the lips is not evidence of artistic skill.

Harmony between the arrangement of the teeth and the facial features may call for evenly arranged teeth, or it may call for slightly irregular teeth, depending upon the form or contour of the face and head. If the patient has that which is called, "high cheek bones," and an aquiline nose, with a corresponding mentality, the teeth should be slightly irregular in order to harmonize. A selfish expression, however, may not necessarily be intensified, by inclining the teeth posteriorly, like those of a serpent, nor by leaving the cuspids so long as to cause a ferocious expression. If any deviation is allowed to be made, harshness of expression may be softened somewhat, but not to the extent of causing too much incongruity between the intellectual and the physical, for that would cause an expression of deception. One of the most important aims should be to keep the upper cuspids down as close to the lower teeth as is prudent for proper occlusion of the arches, and not have the six anterior teeth appear like a straight line.

As before implied, to accomplish the highest degree of beauty, and at the same time accomplish perfect antagonism, is not always possible. While perfect antagonism is of great importance, it should not, as elsewhere mentioned, be made at the expense of beauty of facial outline and intellectual expression. To repeat: Every regulator should have high ideas, and always aim upward: high art in the correction of deformities should be the main aim, and should be carried out, as far as possible, but of course no dentist should expect these excellencies in results who does not have some natural artistic gifts, and clear knowledge of the ideals known to great artists concerning the proportion of different parts of the human face, and as before said know the comparative merits of the several different classes of faces sufficiently to determine at a glance the points

that can and the points that cannot be improved by moving the teeth. But to know well the degree to which this knowledge can be best applied in a case, and the degree that circumstances of the patient's health, social position, educational and business environments will permit, must indeed be evidences of sound judgment.

**Beauty
Defined.**

The meaning of the term beauty of course may differ with different persons, but the essayist means by the term beauty, a physical and intellectual harmony of expression that everybody loves to see. In some cases it is not only possible to accomplish this balance, but to stimulate personal confidence, so that it (confidence) will cause an expression of self reliance that will strengthen and cause an appearance of a balanced mind, free from self-mortification, sometimes engendered by consciousness of personal deformity.

Whether it is right to carry facial beauty in appearance beyond the power of the brain may be questionable, but the essayist thinks that less harm is caused by so doing than by the reverse results, especially in cases of women. The only injury, sometimes noticed, is stimulation of personal pride, into temporary degeneracy called vanity.

The Philosophy of the Author's Plan vs. the Old Plan.

There are many cases in which the upper arch requires more or less widening in order to establish proper antagonism, but to widen the upper arch beyond the accomplishment of proper antagonism can hardly be regarded as scientific. I shall not attempt in the limited time here given to go over the entire field of this question, but shall confine my remarks to the main principles.

In cases of narrow arches, caused by mouth breathing, or by wrong antagonism, or little or no antagonism, it is generally the upper arch that is most at fault. In these cases, the arch tends to narrow more than does the lower. Indeed the lower seldom shows this fault. This is because the position of the upper teeth by failing to antagonize with the lower teeth (which when properly arranged has greatly to do with keeping them [upper] in their proper places), go astray by having too much liberty and by pressure of the cheek muscles against them, while in the act of swallowing.

The upper teeth depend more upon antagonism with the lower teeth, than do the lower depend upon antagonism with the upper. When the upper teeth are thus properly regulated, and the lower are not moved, permanency of the upper teeth is much more easily secured than when the

ITEMS OF INTEREST

lower teeth also are moved, which leaves them more or less loose. The compactness of the teeth that contribute to make up the lower arch, is greater than that which contributes to the maintenance of the upper arch. If a side tooth in the lower arch is lost, this defect in the strength of the arch is proven by the inclining forward of the tooth in rear of the space left by the lost tooth. If a side tooth in the upper arch is lost, the tooth posterior to the space does not tend to incline nearly so far, under similar conditions, as in the lower arch. The tooth anterior to the space may drift posteriorly, but if it does drift, it is generally only slightly.

The stone arch principle is greater in the lower than in the upper arch. In the well formed lower, all the teeth may be regarded as buttress keys of the arch, while in the upper, even if well formed, the key principle in most cases is weak or nearly wanting. In early adult and in middle life, the upper teeth are mainly held in place by the lower teeth, aided by the cheek muscles. If properly arranged, the lower teeth not only prevent the upper arch from being strongly self-binding, but the (upper) arch needs no key. The teeth of the upper arch, besides being held by the cheek muscles are prevented from narrowing by the overhanging of the cusps of the lower teeth. Firm lower teeth are held in contact by antagonism of the upper teeth. If the lower teeth are loose the antagonism of the upper may or may not be made firmer. If in either arch, however, there are spaces caused by loss of some of the teeth, and the remainder do not lock properly, while in antagonism, more or less of them may go astray. As we all know there are two kinds of antagonism; cutting antagonism and crushing antagonism. The six front teeth are for the former; all the teeth in the rear of these six front teeth are for the latter purpose.

Treatment of Upper Protrusion.

There are two distinct teachings in regard to the treatment of protruding teeth, and also for irregular anterior teeth; both claim improvement through the theory of antagonism. The essayist's plan (since 1864) is founded upon that which he regards as the broad basis of esthetics which embraces also efficient antagonism. The other plan is simply to even the teeth of one jaw without much regard (excepting in name, to antagonizing with the teeth of the opposite jaw, and with slight, if any regard to esthetics, or the effect of the operation upon the facial features. One is permanent regulation of the teeth, of both jaws; the other, the doubtful and almost certain destruction, not only of lasting proper antagonism, but injury to facial beauty.

One plan has for its object, first to beautify the face, second the accomplishment of permanent efficient antagonism, not necessarily perfect antagonism in all cases, that is firm and strong and not liable to go astray



by antagonism. The other plan is to widen the upper arch, until all the irregular upper teeth are brought into line, and then leave them, or else widen the lower arch to match; a plan that leaves both arches with little or no support; irresponsible and liable to destroy the equilibrium, unless held by artificial retainers.

The treatment of cases of jumbled front teeth or protruding teeth by the essayist's plan, when it is not necessary to widen the upper arch, is to shorten it by extraction of a bicuspid on one, and possibly on both sides, and then to move the teeth anterior to the space posteriorly or diagonally back, along the dental line, and not attempt to widen the arch. The other operation is to shorten the protruding part of the arch by widening it; even if it injures facial expression. By the essayist's plan the operation is not only easier and shorter, but firmness of antagonism is not at all disturbed, and facial expression is improved, not weakened. To extract a first bicuspid and then move the cuspid into the space made, leaves the cuspid in the place of the outer cusps of the extracted first bicuspid, and then move the lateral incisor into the place of the cuspid, and following this by moving the central does not disturb antagonism, nor does it in any way injure facial expression, for the lacking of one bicuspid is not noticeable when the line of the upper teeth are properly closed up, because the arch, while it is shortened, leaves none of the weaknesses between the two arches; that is caused by over widening. This plan is natural antagonism, the other is loose artificial antagonism; this one is firm, strong and reliable; this one generally intensifies facial beauty, the other scatters and weakens it.

Sometimes it is better to extract a second bicuspid instead of the first, but this depends upon the extent of irregularity to the corrected in the anterior part of the arch.*

*This point may be found explained in Farrar's, Vol. I.



How Much Orthodontia Should the General Practitioner Do?

By MARTIN DEWEY, D.D.S., M.D., Grand Rapids, Michigan.

*An address delivered before the Southwestern Michigan Dental Society, April
11 and 12, 1905.*

The practice of orthodontia is by no means new as we find the first text books on dentistry contained chapters on "the correction of irregularities of the teeth;" but it is within recent years that we find interest has increased to such an extent that any dental journal you may pick up whether the circulation be large or small, almost invariably contains articles on orthodontia. The cause of this new and increased interest in the subject of orthodontia is the fact that orthodontia has established itself as a *specialty of dentistry*. No one thing has done more toward establishing orthodontia as a specialty than the organization of the American Society of Orthodontists.

When the society was first organized the "wise-acres" of dentistry said the society could not exist because orthodontia was too limited a field to support a society of its own. The growth of the society has been steadily onward and upward until we find, at the recent International Dental Congress, that the section of orthodontia was the most successful of them all.

Since orthodontia has established itself as a *specialty of dentistry* the question naturally follows: "What will be the attitude of the dental profession toward orthodontia in its proper sphere?" Will the profession continue to do orthodontia in the future as it has in the past, and is doing in the present or will it confine itself to operations in general dentistry for which it is better fitted?

Whatever the attitude of the dental profession may be it will necessarily be governed by the attitude of the individual practitioner. In other words, "How much Orthodontia should the General Practitioner do?" To answer this question in a few words, I will say, "Not any." My reason for answering the question in this manner is the fact that orthodontia has been and is yet a neglected subject in the dental college curriculum; lectures on this subject are generally given by some one occupying some other chair in the college. These lectures are generally on, "How to Construct Regulating Appliances?" "The Taking of Modeling Compound Impressions," and "The Extraction of Teeth for the Correction of Malocclusions," and "When and What Teeth to Extract."

ORTHODONTIA

The result of such teaching has been the extraction of any tooth from the third molar to the central incisor. We still find prominent men, high in the profession of dentistry, advocating the extraction of the first permanent molar for the *correction* of malocclusion of the anterior teeth. I will say the case never did exist in which the occlusion of the anterior teeth was benefited by the extraction of the first permanent molar. Not only was there failure to benefit the existing malocclusion, but the patient's facial outline was spoiled and the *condition complicated* by the production of a *malocclusion* of the *molar region*.

Hereditary Malocclusion.

We also find the theory of inherited malocclusion is still taught by some men. They claim that the "intermarriage of types," "mixing of races" and the "inheritance of large teeth and small jaws" cause a large percentage of malocclusions. The theory in itself is faulty because the tendency of nature is to harmonize conditions. If we saw such a deformity existing in the teeth and jaws why would not a like condition exist in other parts of the anatomy? For example, why would you not see large fingers on small hands or large finger nails on small fingers? If the child would inherit large teeth and small jaws why would you not see equally as many cases of small teeth and large jaws? But we find the result of this teaching is, that dentists have practiced the extraction of teeth for the correction of malocclusions claiming that the case could not be otherwise treated because of this inherited condition. We even find men who have gone so far as to extract some of the anterior teeth for the correction of malocclusion justifying their acts by claiming the teeth were too large for the arches. Consequently a great deal of harm is still being done by those who are attempting to correct malocclusions by extraction. Not only do they fail to obtain normal occlusions; but the condition is often made worse from the standpoint of an ideal arrangement of the teeth; and they furthermore produce harm by spoiling the facial outline of the patient. It is the result of seeing so *many of these failures*, the result of the *harm* that is being done, and the needless *sacrifice* of teeth that has caused me to say that the general practitioner should abandon the practice of orthodontia as a general rule.

Restriction of Practice.

Another reason why the general practitioner should confine himself to the practice of general dentistry is the fact that it is impossible to successfully practice orthodontia in connection with other practice. Like oil and water, they refuse to mix. He will either neglect his general practice or his orthodontia patients. He may set aside certain hours of the day and faithfully promise himself that he will do noth-



ITEMS OF INTEREST

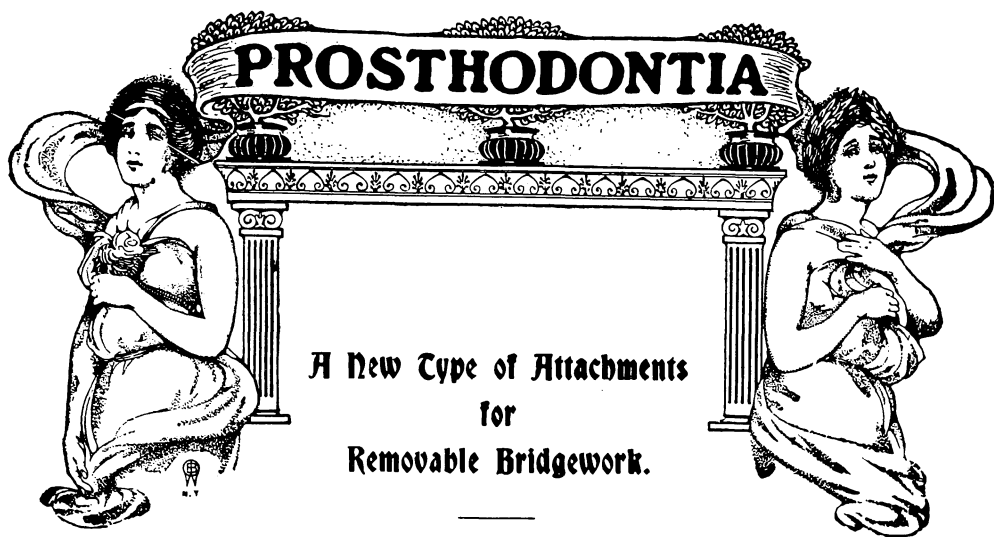
ing but orthodontia during that hour; but the first thing he knows his general practice has crowded into the time set aside for the treatment of cases of malocclusion. He will have a patient in the chair, making a gold filling when the orthodontia patient comes in. He cannot ask the patient to sit in the chair with a rubber dam on while he waits on the patient with the malocclusion. He tells the orthodontia patient to come back tomorrow; but tomorrow the patient has a ticket to the matinee or other social engagement so the appointment is lost entirely. The result of this is that the dentist becomes discouraged, the patient becomes discouraged and so the appliance is removed before the case is completed and another failure is recorded. It is also impossible for the general practitioner to acquire the same technical skill by devoting a few hours each day to the practice of orthodontia that a specialist would, by devoting his entire time to it. The general practitioner may possess a good knowledge of modern orthodontia; but unless he possesses the technical knowledge his operations will necessarily be second class. You have no right to ask your patients to be content with operations in orthodontia which are not the best any more than you have the right to ask them to be content with second class work in operative dentistry or crown and bridge work. The general practitioner, not possessing the required skill, will necessarily have to treat cases at a financial loss. It would be dollars and cents to his advantage if he would confine himself to the field of general dentistry for which he is better fitted, and recommend patients in need of orthodontia treatment to one who devotes his entire time to the treatment of malocclusions.

The usefulness of the general practitioner in orthodontia still exists. On him depends to a great extent the rapidity with which orthodontia will develop as a specialty. His usefulness to orthodontia in the future will be that of advisor. It will be he who will first see the patients suffering from malocclusions, and in order that he may give good advice he must necessarily be familiar with the teachings of modern orthodontia. He must be familiar with normal occlusion, recognize the relation the teeth of one arch bear to the other, also be familiar with the laws of normal occlusion. He must be familiar with the temporary teeth as possible factors in the production or the prevention of malocclusion in the permanent teeth. He must also recognize patients suffering from nasal obstructions, advise early treatment of the difficulty so as to obtain the best results from the standpoint of occlusion and facial art. When the dentist becomes familiar with the principles of modern orthodontia we will see fewer failures such as the treatment of cases in which the malocclusions of the upper arch have been corrected without any consideration being taken of the lower arch. The question may be raised that the

ORTHODONTIA

general practitioner is forced to do some orthodontia because the specialists are too few. Whenever the dental profession shows a greater tendency toward recommending patients suffering from malocclusions to the men devoting their entire time to the treatment of such cases, specialists will become more numerous, and until that time the general practitioner who attempts to do orthodontia must be sure that anything he does will not be of such nature as to produce harm in after years. He must not forget that the so-called simple cases of malocclusion in which he sees only a "crooked tooth" is but the symptom of some greater trouble: that a tooth crowded out of the arch is but the symptom of a greater malocclusion. He should avoid extraction for the correction of malocclusions and all cases which he treats must be toward the high ideal of normal occlusion and improved facial outlines, and when he has attained these results he has obtained the best results possible in modern orthodontia.





By DR. J. L. KELLY, St. Paul, Minn.

The advantages of removable bridges are conceded by the majority of the dental profession who are progressive.

The demand is for a successful attachment, the main points for success (in my opinion) being dependent upon the following: First, simplicity; second, strength, durability and ease of construction, without complicated parts; third, cleanliness and fourth, applicability in almost any case.

In this new attachment for removable dental bridges, the above ideas are carried out to a high degree, and is the result of several years of study and experiments in practical cases.

Simplicity.

The anchor post is formed by a machine producing them in sizes ranging from one-sixteenth of an inch to three-eighths of an inch in diameter, and so formed that one fits accurately within the other, from the smallest to the largest in size. Thus it will be possible to get any size of attachment required, of course, a larger one being necessary for the molars.

It consists of two like parts, smooth, without projections of any kind, fitting accurately, one telescoping within the other, the outer carried by the bridge, and the inner one attached to cope.

Strength.

They are strong and durable, being made of iridio-platinum, twenty-eight gauge, and reinforced with platinum solder 25 per cent; the inner one on

PROSTHODONTIA

inside and outer one on outside, so that it is impossible to change their shape after being once in position.

Cleanliness; The attachments being smooth and accurately telescoping, cleanliness is self evident; there being no
Applicability. undercuts, there is not as much room for lodgment of food as with the natural teeth.

It is applicable in almost any case, those most difficult with any other attachment, making ideal cases with this, namely: upper jaw, where all teeth are missing, excepting one molar on either side; or if the two bicuspid are all that remain; or the cuspids and first bicuspid, a cuspid on one side and two bicuspid on the other; or all teeth in except first, second and third molars *on one side*; or where two or more of the anterior teeth are gone.

These are all easy of application, and I will promise that if instructions are followed a perfect success is assured; and after the first case no trouble will be experienced in handling any others, no matter how difficult they may appear.

So far as the lower cases are concerned, where there are two good roots to anchor the attachment to, it makes no difference about their position. Of course, it is easier if it happens that there be one on each side and those the bicuspid, but regardless of this, any space can be bridged successfully, as has been demonstrated by practical cases of several bridges which have been worn for three years. In one case cuspid on one side and wisdom tooth on the same side; in another case the cuspids are all that remain; both the patients were past fifty years of age, and have experienced no trouble. They are giving perfect satisfaction at the present time, and are as good as when first worn.

This attachment is small enough to admit of the use of porcelain gum blocks with rubber. Plain teeth with rubber, or gold teeth with rubber, may also be used. It may be made of all porcelain with platinum saddle, or without. No machine is necessary to place anchor post in position.

When I first thought of this plan, I did not test it, because I thought it too simple, and that it must have been tried before and discarded; and that cause of failure seemed to be insufficiency of space, except in exceptional cases, where the bite was long; but since my experiments and the practical cases, which have been in every way successful to a high degree, I have proven that the length of the bite makes no difference.

There have been no conditions that I have yet encountered during the past six years that have not been easily overcome, and cases proven successful.

ITEMS OF INTEREST

I will supply the attachments and gladly assist any one to carry through a case to a successful issue, either by mail or personally at my office, 706 and 707 Germania Building, St. Paul, Minn.

In summing up will say that in my attachment for removable bridge work, the following have been taken advantage of:

First: The mechanical adaptation of the anchor post, within the retaining tube.

Second: The capillary attraction of the moisture present.

Third: The anatomical condition of the roots of all teeth, allowing one-sixty-fourth of an inch movement in any direction, may be taken advantage of in the setting of the holding part on the cope.

*Thus each post may be thrown out of plumb to that extent, thereby giving a dove-tail of one-thirty-second of an inch.**

This to be done on the uppers and only in extreme cases; in all ordinary cases posts should be set parallel to each other.

No machine is necessary to hold them in position while soldering.

There have been a number of articles written on removable bridge-work and the points explained were, first the description of the attachments, second the variety of cases in which it could be used, third the comparison of the attachment with others.

I have made a specialty of bridge work for several years, and especially the removable bridge, and I have tried five different kinds of attachments. I have found that one of the most necessary features in an attachment is simplicity.

In using my attachment it would be best for a beginner to select a case in which the lower eight anterior teeth remain. After having made a case of this kind satisfactorily the dentist will realize the possibilities of this sort of removable bridge.

Technique of the Method.

Take a case where the teeth are missing on both sides, back of the bicuspid; the posterior bicuspid on either side is prepared as for a Richmond crown except that they should be cut so that the cope when made does not extend above the gum and its top surface must be made as flat as possible.

When the copes are made they are placed on roots and a wax bite and a plaster impression taken.

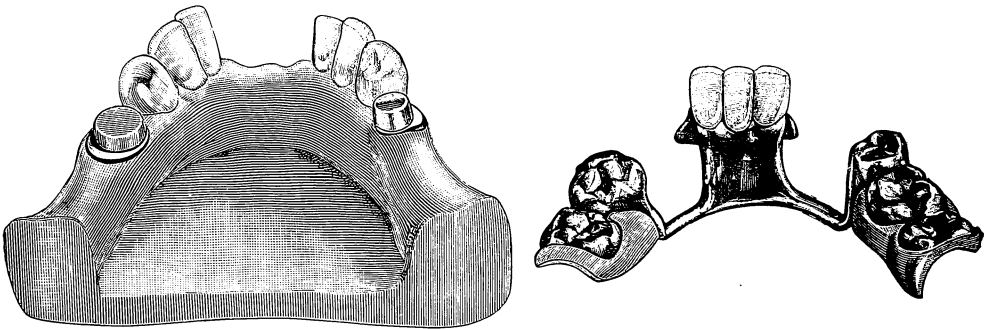
The length of the attachment should be three-fourths the distance from the top surface of the cope to the occlusal line. Of upper teeth the

*This alleged advantage would not be permanent, because under such stress the natural teeth would shift in their sockets.—EDITOR.

PROSTHODONTIA

attachment should be cut so that it will rest evenly on cope and as nearly perpendicular as possible. When cut and fitted place about five grains of platinum solder inside and retain it there with razack (this wax is furnished with attachments and leaves a clean place for soldering) so that it should be placed anywhere you wish it to flow when attachments are in position; use mouth blow pipe to heat until razack flows. When cool remove cope with anchor post in position and invest (as if crown) leaving one-third of cope and anchor post exposed. When dry and hard heat with blow pipe so that platinum solder flows, connecting post to cope; polish cope and post, so that retaining tube may be placed on with ease—put cope in position on cast.

Now the cope with anchor posts soldered on, on either side, are in position on cast. Take a piece of wire No. 12 gauge, extend from one



tube to the other, bending it so that it will drop below gingival ridge, at least one-fourth of an inch below neck of tooth; when satisfactorily arranged bend a piece of iridio platinum bar No. 12 gauge, as you did the lead bar; when in position attach it to the retaining tube with razack; when cool remove bar and tubes carefully from anchor posts and invest bar with retaining tubes in place and when hard, solder. Now try bar (with retaining tubes soldered) on cast and if it goes to place try in mouth. If it is O. K. you may proceed to attach the dummies; in this case use gold shell crowns with aluminum saddles with rubber as a medium of attachment between the two metals.

The shell crowns should be soldered together and soldered to retaining tube. This makes a frame that it is impossible to injure.

Also in case of absorption of tissues (which seldom happens), all that is necessary is to burn out old rubber, place saddles in position, put on wax or any material that will hold parts together, gutta percha between

ITEMS OF INTEREST

saddles and dummies, take bite, forcing saddles on gums, remove, wax up and proceed as with a plate.

Three years ago at Minnesota State Convention at Minneapolis, I exhibited four practical cases.

Cases from Practice. No. 1.

Was wearing a bridge extending from the second molars on both sides, having the two bicuspid for holding the attachment carrying all the upper teeth. This was my first case, which had then been worn three years, and is still doing good service.

No. 2.

A lady past fifty lost all upper teeth and process and lost all lower except five, two of which I had to extract, leaving two cuspids and a bicuspid which were very loose but still alive. She has been wearing a lower bridge now four years held by these roots which have tightened and there is no sign of pus nor absorption.

No. 4.

Simple case, lower molars had been lost for years. She has worn bridge for five years.

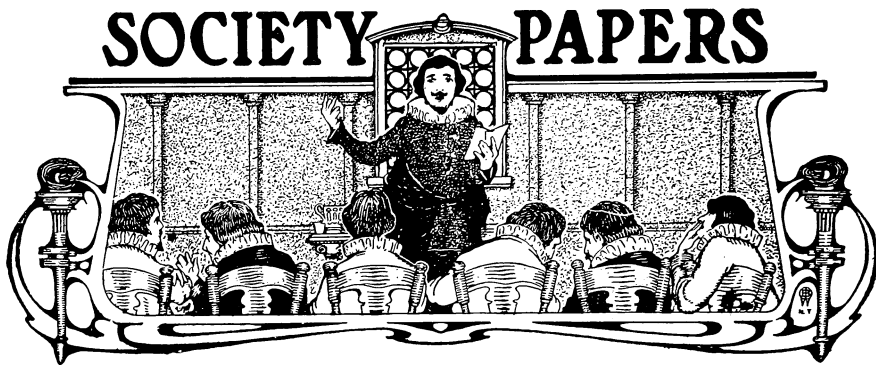
I have finished at least fifteen different kinds of cases; some that have been worn three years, and so far all are a perfect success. The most difficult case I ever had or ever expect to have has been successful, and may be seen at any time. I showed this case at State Convention at St. Paul, June, 1904, and had no unfavorable comments. In this case the attachments were placed on the right cuspid root and left second bicuspid; this was the third time the cuspid had been crowned and the bicuspid when the jaws were closed touched the lower gum.

In this case I opened bite five-sixteenths of an inch.

When worn six months, the jaws came together one-eighth of an inch, and have remained in that position for two years. This will show that in opening bite in ordinary cases it is well to allow at least one-sixteenth of an inch more than normal.

Both jaws were small and irregular. The upper ridge on left side when jaws were at rest extended inside the lower ridge one-fourth of an inch, so that the buccal surface of the upper bicuspid (the only tooth that had not been crowned), touched the lingual surface of the lower ridge.

The anchor posts in this case were placed so that they leaned from each other so as to produce a dove-tail of at least one-eighth of an inch, which held upper bridge firmly in position.



The Relative Adaptability and Comparative Permanency of the Gold Filling and the Porcelain Inlay.

By DR. R. H. HOFHEINZ, Rochester, N. Y.

Read before the Second District Dental Society, January, 1905.

Writing an essay on the importance of gold filling at this advanced age of porcelain seems almost a myth. So much has been written within the last two years on this subject that at first sight it seems exhausted. Old battles have been fought over with new weapons, and a different vocabulary. Many individual methods of filling teeth with gold have been advocated, and it seems to me like carrying water to the ocean to attempt writing an essay on a gold filling. According to the views of some gentlemen, the dental operator who uses gold to any extent at the present time is a man of obsolete views; belongs to the dark middle ages of dentistry; has not as yet been illuminated by the brilliant rays of the porcelain sun, and really deserves only historical pity.

I have listened to a statement made by a well known porcelain worker that gold fillings at the present time have only a place in the lingual pit of incisors and in small fissure cavities of the posterior teeth. This would relegate gold to the poorest place among all filling materials, after it had held the sceptre of glory for many years past.

Poor gold filling! Must you really hide your face to such a degree before the brilliancy of porcelain? I not only doubt it, but most emphatically deny it. Do not consider me an obstructionist to the advancement of porcelain, but I believe that porcelain, like everything else in and out of dentistry, has its limitations. I do believe that a first-

ITEMS OF INTEREST

class gold filling will outlast a first class porcelain filling in the majority of cavities. Time, the only supreme court in such matters, has had until now no chance to reverse this judgment.

No matter how perfectly a margin of porcelain is fitted to tooth substance it can never reach the adaptability of gold to a tooth wall.

No porcelain can be safely brought over sufficiently beveled enamel margins to withstand the stress of mastication and protect the enamel prisms to the degree that gold does.

No filling depending on cement for its retention will last in certain mouths, nor in certain localities in some mouths, as well as one placed in the cavity by mechanico-dental retentions. This, however, does not do away with the fact that porcelain in many instances has properties which gold does not possess, and has for this reason been recognized as one of our most valuable materials with which to repair the decay of teeth.



Fig. 1.

Let us enumerate the cavities and compare the relative permanency and adaptability of gold and porcelain.

1. An initial decay (Fig. 1a) upon the approximal surface of central and lateral incisors and cuspids. A cavity after its preparation of possibly one millimeter in diameter, and in no way visible after filling.

Shall we in this instance fill with gold or porcelain? I consider the cavity too small for perfect porcelain work. Why not enlarge it and make a cavity big enough for the purpose? I answer that such a course is always open to the operator, if this gold filling should prove a failure. We are not now considering the question of extension for prevention. My views on this subject have been repeatedly expressed, last but not least in the discussion of Dr. Black's grand paper read in December before the First District Dental Society of New York. The failure of this small gold filling is like everything else, but a question of time and conditions. This cavity, properly filled with soft and semi-cohesive gold

and thoroughly burnished will do service for many years, if the patient is taught the proper prophylaxis of the mouth, especially in reference to the approximal part of the filled tooth. All extension for porcelain purposes is avoided for an indefinite time, if the surface receives the proper attention after filling.

2. The same must be said in favor of the still smaller cavities upon the same surfaces of inferior incisors and cuspids.

3. The lingual approximal cavities Fig. 1b I also except. I have numerous patients who are unquestionably hypersensitive at the tip of the tongue, and they complain of the invariable little space between the inlay and the cavity margin, whenever the inevitable disintegration of the cement takes place. Such patients would probably find that insignificant space if it were in their ear. A well condensed and finished gold filling will have no such objectionable feature. I grant that this is not noticed

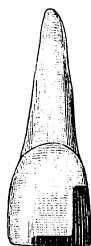


Fig. 2.

by all patients, and that it is relatively insignificant, but I find no objection to a gold filling in this locality, excepting the superior skill it requires to perform the operation.

4. One other approximal cavity (Fig. 2), which, however, is more or less compound, comes under our classification. Where as most frequently occurs in a bell shaped tooth, the lower three millimeters of the incisors decay—entirely approximo-linguo-incisively, the cavity not being deep, the bite almost entirely upon the linguo incisive angle, slanting toward the lingual surface.

In those cases the restoration with gold approximo lingually, with the proper incisive step, is preferable to a thin porcelain filling which, under the stress of mastication, is apt to fail because there is not sufficient body. If these teeth belong to the class which presents a very thick diameter labio-lingually, porcelain becomes a much safer filling.

ITEMS OF INTEREST

5. The same to a greater degree refers to the inferior incisors (Fig. 3), where the lack of porcelain body would be a greater reason for gold, even if the labial part of the gold were slightly exposed after completion. Gold permits of an incisal step, which is not advisable with porcelain upon a surface less than a millimeter in diameter labio-lingually.

The question arises: Shall all other simple approximal cavities in the incisor teeth be filled with porcelain? I answer, "Yes." All cavities which are large enough to call for a proper amount of porcelain body, and all cavities whose labial extension is sufficient to betray gold after filling.

6. Approximal cavities of cuspids must be treated according to the locality. Mesio-approximal cavities are usually very much smaller than disto-approximal ones, and incline more toward the labial surface. The same law applies to them as to incisors.



Fig. 3.



Fig. 4.

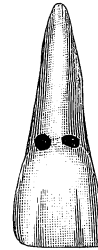


Fig. 5.

7. The disto-approximal cavities (Fig. 4) can almost invariably be filled from the lingual aspect of the tooth. They are more exposed to a severe bite from the inferior bicuspid than any one of the lingual cavities in the incisors. Arguing that a well-placed and properly extended gold filling is more permanent than a porcelain one, where stress is unduly great, I advocate the filling of these cavities with gold.

Labial Cavities.

Gold in the cavities on the labial portion of the six anterior teeth plays, I am happy to say, a very subordinate role at the present time. There are, however, two classes of cavities where gold may have to be used, and is more permanent than porcelain.

8. There are extremely small cavities to be found under the gum tissues (Fig. 5), sometimes scarcely involving the enamel. They seem to be entirely due to an occasional follicular acidity, and not the more con-

tinuous one which is apt to produce erosion. These cavities often show a smaller circumference than the initial cavities I referred to under No. 1, upon the approximal surfaces of incisors. These cavities filled with porcelain are extremely insecure, owing to the acid secretions referred to, which must sooner or later disintegrate cement. These cavities must not be mistaken for the labial cavities which involve the enamel surfaces only, and which should always receive porcelain inlays.

In a paper read at the union meeting of the Seventh and Eighth District Societies, and published in the *Cosmos*, 1903, page 31, I have spoken of my endeavors to overcome this disintegration of cement by using gutta percha dissolved in 95 per cent chloroform and 5 per cent of oil of eucalyptus. My experiments in that direction did not prove fully satisfactory. In addition to what I then recommended I now allow the chloroform to evaporate more, and warm the inlay to the approximate

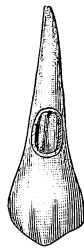


Fig. 6.



Fig. 7.

heat the gutta percha needs for softening. Whenever I find cavities of this particular nature, I use gold for permanency if the cavities are small enough for my esthetic conscience.

9. The other class of labial cavities where I find porcelain fails early are the extremely large ones (Fig. 6), especially in cuspids which are the result of both follicular acidity and shrinkage of the gum caused by mechanical abrasion, shrinkage having taken place one to three millimeters from the gingival line rootwise, and the cavity probably representing one of five millimeters gingivo-incisively to three or four millimeters mesio-distally. Wherever porcelain has failed in cases of that kind I have resorted to gold inlays set entirely in gutta percha such as I have described in the paper published in the *Cosmos*, 1903, page 32.

All other strictly labial cavities upon incisors and cuspids, and there are quite a large number of them, can be filled with porcelain and with

ITEMS OF INTEREST

every reasonable degree of permanency. I wish to mention one particular kind (Fig. 7), also a product of faulty enamel development, that perforates the tooth labio-lingually. My former method was to fill the entire cavity with oxyphosphate of zinc, remove the lingual portion and substitute gold, and grind a porcelain inlay for the labial part. The porcelain rod does the most perfect work in cavities of this character.

I except, however, all cavities due to erosion. Erosion with its cause due to acid secretions is a condition which rejects cement as useless; and all fillings which depend on cementation become less permanent. In speaking to Dr. J. Edw. Line on this subject he advised me that he had recently seen an extensive amount of porcelain inlays made in teeth suffering severely from erosion. He kindly sent me these drawings (Figs. 8 and 9), and writes as follows:

"This particular tooth was one of five anterior teeth similarly treated,

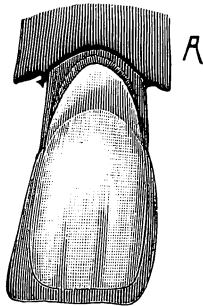


Fig. 8.

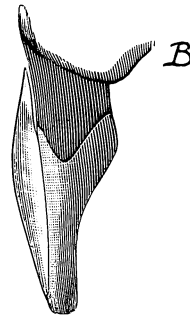


Fig. 9.

but the only one showing in a remarkable degree the solvent effects of oral erosives. The onlay, like its fellows, was slab-like in its proportions, and had been applied for the triple purpose of displacing offensively conspicuous gold fillings, restoring the tooth to its normal form, and heading-off the erosive action on both crown and root.

"The treatment failed, as to the last named purpose, first, through the disintegration and washing-out of the cement; second, through re-exposure of the tooth to the direct action of erosive secretions; in other words, the usual erosives augmented by otherwise normal secretions holding in solution, or suspension, fermentable ingredients of food.

"The space between the root-portion of the onlay and the tooth had been filled again and again with cement, always by request of the patient, and for no other purpose than to be rid of the offensive-to-the-taste material that invariably collected in this notch-like cavity."

It may not be amiss to add in this connection that cement as we now know it cannot be made to withstand the secretion primarily concerned in the production of erosion; and further, that the well-made and properly inserted gold filling has yet to be undermined by such erosive agent!

**Lingual Cavities
of Centrals
and Laterals.**

It has been conceded by some of the porcelain enthusiasts that gold is a fit filling for cavities in the lingual pit (Fig. 10-a). Let us accept that dictum as final and as a flattery to that much abused material. What, however, if the small cavity in the lingual pit has increased its ordinary size, say into a cavity of three or four millimeters, mesio-distally to five millimeters gingivo-incisively (Fig. 10b). There is no cavity which I would rather fill with porcelain than a lingual cavity of such dimensions.

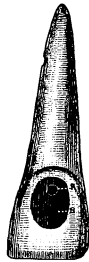


Fig. 10.



Fig. 11.

Nowhere are we nearer the pulp and nowhere do we need the non-conductive quality of porcelain more than in this lingual concavity of the tooth. Whenever possible I use it. The bite, however, becomes of the greatest importance in connection with such large cavities (Fig. 11). The thickness of an ordinary tooth five millimeters from the gingival line is often not more than one and a half to two millimeters. The pulp has to be considered and the porcelain at the extreme extension incisively would under some conditions have to be too thin to resist the stress of mastication. In the case of a gold filling a large bevel disposes of that difficulty, and a number of these cavities therefore need gold for permanency.

(b.) We have another class of lingual cavities along the gum line which owe their existence to the same causes as the labial cavities in

ITEMS OF INTEREST

their relative positions mentioned under No. 8. (Fig. 5.) They are occasionally large enough to have invaded the enamel zone to a degree. If the follicular hyperacidity has stopped those cavities can be treated as the general labial cavities mentioned under No. 8, excepting the fact that esthetics do not come into consideration.

I have at present a case under treatment where these small round cavities have gradually connected with each other and form cavities as seen in Fig 12. I have filled the small cavities with oxyphosphate of copper which washed out about every four months and treated the decalcifications with nitrate of silver for nearly two years, and have thus confined them as shown by the model. The bite, which I hope to change

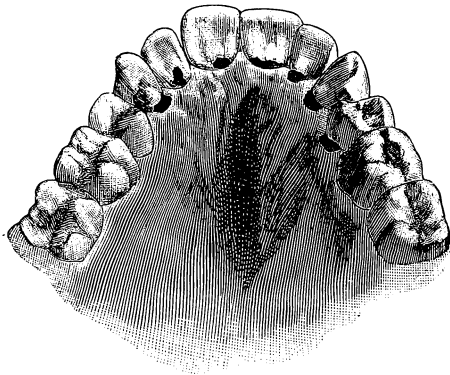


Fig. 12.

mechanically by driving the lower teeth downward, may have had something to do with the abnormality of this gum tissue. I have reason to assume that the follicular secretions are now more normal. If I decide to fill these cavities permanently, however, I feel that a gold filling is infinitely safer than one dependent on a cemented foundation. Such acid conditions are apt to cause a recurrence, and the gold necessarily would insure a greater degree of permanency.

12. Incisive cavities of the centrals and laterals:

Incisive Cavities. We find three distinct kinds of decay for treatment upon the incisive edges.

(a.) Soft decay with extremely thin enamel margins (Fig. 13). If ever porcelain is wanted for esthetic and convenient purposes it is

for a filling of this kind and should always be used, though it is a most vulnerable place for delicate porcelain fillings, and I have seen many failures owing to the fact that not enough substance could be used owing to the thinness of the tooth per se. Choice of filling material must be left altogether according to the thickness of the incisive, edge, and the relative stress from the opposing tooth.

(b.) The well known cavities brought about by defective enamel development. They may present themselves: (a¹) In small cone-shaped cavities. (Fig. 14.) The filling of these cavities with gold is, under most circumstances, an unsatisfactory operation. The retention is difficult to obtain, owing to the thinness of these teeth, and the enamel is of such poor quality that the condensation of gold becomes questionable. Other obstacles present themselves for porcelain inlays. It is difficult to



Fig. 13.

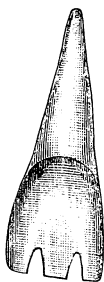


Fig. 14.

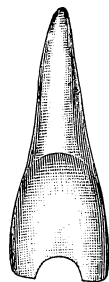


Fig. 15.

obtain a matrix, and the imperfection of the enamel does not permit of a smooth margin. Dr. Proseus of Rochester has suggested the making of a porcelain cone which can be cut and trimmed until it closes the circumference of the cavity as nearly as possible, thus making what I consider the best filling under the circumstances. (a²) In half-round cavities (Fig. 15), which present similar difficulties to gold and are more permanently filled with a cemented porcelain inlay.

(c.) The cavities produced by attrition. (Fig. 16,) I consider gold and platinum preferable to any porcelain, because it can be more securely anchored in the tooth and resists the force of mastication better than porcelain. If it becomes necessary to properly restore the incisive edge with gold, the anchorage in the incisive part of the tooth may not prove sufficient. Screws have been recommended to be placed and filled

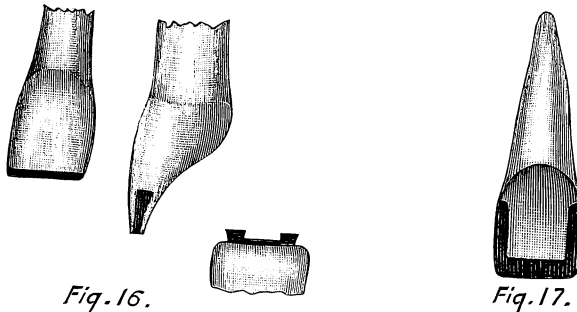
ITEMS OF INTEREST

around them. I prefer to make one or two compound cavities of it by extending upon the approximal part of the tooth, thus getting a cervical retention together with the incisal one, especially required if the tooth is thin labio-lingually, and if stress upon the filling is great.

13. The same rules apply to the lower incisive cavities. Porcelain in these teeth of imperfect enamel development is even more indicated and so is gold in cavities produced by attrition.

14. The same rules apply to the cuspids, excepting under "c" the fact that it rarely becomes necessary to make approximal extensions owing to the greater thickness of the cuspids, which makes it also more favorable for porcelain.

15. Contour fillings of incisors. For practically all contour work of the incisor teeth the same enthusiasm for porcelain comes upon us



that we met in dealing with labial cavities. All approximal contour work we naturally endeavor to restore with porcelain. But in many instances of unfavorable bite I have seen the delicate work of porcelain fail owing to the gradual cleavage of the enamel rods lingually and the lack of support incisively.

The argument can naturally be brought forth to relieve the direct contact of either upper or lower tooth. Such, however, may not be desirable. The six anterior teeth may be the only ones the patient relies upon for mastication, and every contact point remains an imperative necessity.

In cases of extraordinarily extensive contour work (Fig. 17), which involves the two approximal surfaces and incisive edge of incisors with live pulps, and where the bite is very unfavorable, I consider the platina-gold filling a more permanent piece of operative dentistry than the porcelain inlay which must be made in sections. The gold filling can, if necessary, be extended into the lingual pit (Fig. 18), thus getting additional security. There is probably nothing more offensive to the esthetic dental

eye than this class of contour work, always excepting the deplorable gold crown. Yet there are instances where a platina gold filling or a Land crown remain the only alternatives. Esthetics will dictate the crown; idiosyncrasy of the patient, the filling.

16. We have practically covered the incisive contour under 12c.

17. All the arguments in favor of occasional contour gold fillings of upper incisors can be more correctly applied to lower incisors. The body of the tooth often affords but small retention for porcelain. Porcelain does not permit of the numerous lingual steps (Fig. 18), and is often too thin incisively to give strength, and in numerous instances the much condemned gold contour must be resorted to for permanency.



Fig. 18.

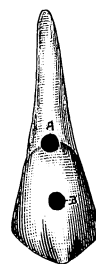
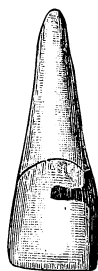


Fig. 19.

Buccal Cavities in Bicuspsids.

18. Buccal cavities of bicuspsids come under the same category as the labial cavities of centrals and cuspids discussed under No. 8. The same small cavities are occasionally found owing to a spasmodic recurrence of follicular acidity, and must be filled with gold if permanency is to be expected.

I have one case in mind where two distinct buccal cavities existed in an unfortunately hyperacid mouth of a young man of eighteen. (Fig. 19.) The one cavity being (a) the ordinary one extending one-half millimeter under the gum tissue; (b) one about four millimeters from the gingival line, which means about half way between the gingival line and the buccal cusp. The cavity (a) was filled by two different dentists four times with porcelain and failed each time. The cavity (b) remained filled with porcelain since its first introduction. Cavity (a) was finally filled with gold and the patient feels grateful for the fact.

Buccal Cavities in Molars.

19. Gold with the ordinary operator does not come into quite so debatable a competition with porcelain upon posterior teeth as in some of the other

ITEMS OF INTEREST

cavities; and in many practices amalgam begins with the first molar, though some make a convenient compromise and bring it into proper vision on the disto-approximal surface of the first bicuspid.

Any ordinary buccal cavity in a molar can be as permanently filled with porcelain as with gold, and with the Dalls method a great deal faster. There are, however, the same exceptions that have confronted us in almost all other cavities.

(a.) The same small cavities as we considered under No. 18, in bicuspid at the gingival line. (Fig. 19.)

(b.) The extensive cavity which extends from two to three millimeters under the gingival line to within about two millimeters of the bucco-occlusal angle. (Fig. 20.) Cavities where a perfect matrix or impression are next to an impossibility.

These cavities if not filled with a combination of gold and amalgam

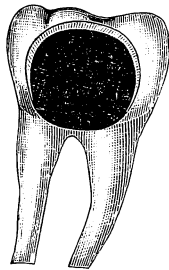


Fig. 20.

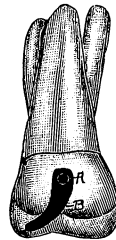


Fig. 21.

are most permanently preserved by a gold inlay in gutta percha, as shown upon the cuspid (Fig. 7), *provided* the bite is favorable. If unfavorable, a gold filling is needed owing to the fact that only a large bevel will prevent the enamel margins from cleaving near the bucco-occlusal angle.

(c) The extensive cavities which involve the bucco-occlusal angle of the molar and form a compound bucco-occlusal cavity. The extension of the bevel upon the occlusal surface is demanded, which makes gold the only permanent filling.

20. Lingual cavities of bicuspid are rare, and those found at the gingival line are usually due to the same causes we find prevalent in similar cases of the anterior teeth, and must receive the same treatment.

21. Lingual cavities of upper molars of ordinary size, originating in the lingual pit (Fig. 21-a), are as permanently filled with porcelain as with gold. The exceptions are:

(a.) Where the cavities are at the gingival line and due to the follicular acidity referred to under labial and buccal cavities;

(b.) Where the cavity has extended to the linguo-occlusal angle (Fig. 21-b), and the bite is unfavorable. In that case gold is demanded for the same reason I recommend it for the large buccal cavities in molars, No. 19 c.

Lingual cavities of lower bicuspid and molars are fortunately extremely rare, and in most instances amalgam is preferable to either gold or porcelain, especially if caused by the accumulation of food under flabby gum tissue. (Fig. 22-a.)

The cavities we find half way between the gingival line and the linguo-occlusal angle (Fig. 22-b), are most readily filled with the porcelain rod, and I think equally as permanently as with gold.

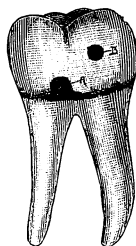


Fig. 22.

**Occlusal
Cavities.**

22. Occlusal cavities of bicuspid have been conceded to be better filled with gold than with porcelain.

23. Occlusal cavities of molars. It is my belief that all occlusal cavities of molars, excepting where the bite is extraordinarily favorable, are more permanently filled with gold than with porcelain. No enamel margins require more beveling than those that come in direct contact with the force of the opposing tooth; and, with a few buccal exceptions, nowhere is a stronger force exerted on these margins than in occlusal fillings. I therefore hold that the greater permanency must be granted to a gold filling.

**Approximal Cavities
in
Buccal Teeth.**

24. Approximal fillings of bicuspid and molars. There are probably no fillings which, to the ordinary operator, seem more difficult to accomplish perfectly with gold than the approximal fillings of bicuspid and molars. There is a great difference between the

ITEMS OF INTEREST

simple and compound cavity in their relative need of skill and judgment and above all in the relative permanency of the fillings.

Let us dispose of the simple approximal fillings (Fig. 23) of bicus-pids and molars by saying that possibly no filling material will preserve these teeth, unless a reasonable degree of immunity and the most painfully conscientious degree of prophylaxis follows their insertion. Nowhere is a more or less degree of extension for prevention more needed than in the small approximal cavity upon these flat surfaces.

What about the compound fillings? I have started this paper with the assertive dogma that a first-class gold filling is more permanent than a first-class porcelain filling. This refers particularly to fillings where great stress comes to bear on them, and where the secretions of the mouth are apt to distintegrate the cement foundation of an inlay. We have both

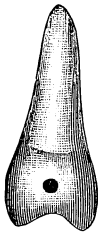


Fig. 23.

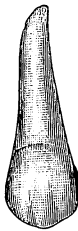


Fig. 24.

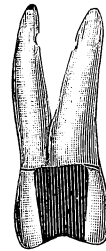
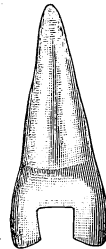


Fig. 25.

conditions existing in approximal compound cavities of bicus-pids and molars.

A small compound cavity is probably as permanently filled with porcelain as with gold. Why? Under adverse circumstances all, say two by three millimeter fillings, upon these flat surfaces show a recurrence of decay after a time, unless the contact point has been changed by the increased convexity of the filling. (Fig. 24.) This is one of the great points emphasized by Dr. Black's paper read in New York last December. Owing to the fact that this convexity upon fillings of this size is much more easily produced and preserved with porcelain than with gold by the ordinary operator, these fillings have equal chances of longevity.

The same degree of assurance cannot be placed upon extensive compound approximal fillings, say cavities four to five millimeters bucco-lingually to six millimeters gingivo-occlusively. (Fig. 25.) A cavity which extends approximately beyond the gingival line and involves a

large part of the occlusal surface at once presents the consideration of the two most vulnerable points of porcelain.

- (a.) The disintegration of cement at the gingival margin;
- (b.) The cleaving of the enamel margins occlusally provided the stress is heavy enough.

Both objections are removed in case of gold fillings, and these cavities would, in a great measure, appeal to gold for permanency. Naturally conditions dictate in these instances just as they should in all others.

Mesio-approximal cavities of first and second bicuspsids of even first molars may imperatively demand porcelain for esthetic purposes. If there is doubt as to the permanency of the porcelain filling the entire cavity may be filled with gold and the buccal part of the filling removed and replaced with porcelain. (Fig. 26.) Many old gold fillings I have treated in that manner. Fillings, though they showed the touch of time

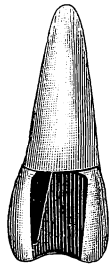


Fig. 26.

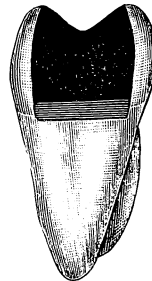


Fig. 27.

but preserved the human tooth wonderfully well, I have retained in their usefulness, and have improved them esthetically. This refers particularly to mesio-approximal first and second bicuspsids which were somewhat rotated in time, thus exposing a gold surface which, when originally filled may have been completely concealed.

The extremely large contour fillings of bicuspsids and molars which in either event are doubtfully preserved by any filling material, are usually better preserved by an inlay. They can be replaced with greater rapidity in case of failure than a gold filling, which cannot be built upon a correct and solid mechanical foundation in relation to the stress it may have to endure during its future.

In cases of very extensive inlays upon molars (Fig. 27), where the correct adaptation of the matrix at the gingival margin becomes very uncertain I make this compromise. I do not prepare thoroughly the gingival margin until after the inlay is made. If correctly adapted to

ITEMS OF INTEREST

all other margins I prepare this inaccessible gingivo-cavo-surface angle, as our Western friends term it, and fill it with reasonably soft amalgam. Before any crystallization has occurred I press the inlay into place and retain it there until the amalgam has crystallized. All surplus amalgam is removed before crystallization, and I thus have my cement joint between amalgam and porcelain where it can do no harm.

Porcelain fillings have created a new era in dentistry, but the time has not yet arrived when we can afford to discard the princely filling material which has stood the test of time better than any other material in dentistry. Neither gold nor porcelain is for all places.

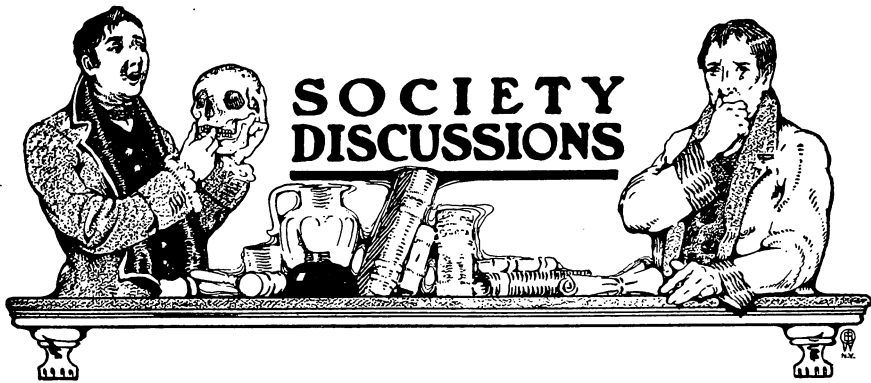
A high degree of correct judgment must be applied in the determination of where gold and where porcelain should be used. It is easy for a gold enthusiast to say that he can fill all cavities with gold more permanently than with porcelain. It is equally easy for a porcelain enthusiast to say that he can fill all cavities with porcelain with greater ease to himself and patient.

The question of relative permanency he cannot as yet prove. Time will have to assist us in giving any such dictum with a full degree of veracity. In many instances the esthetic purpose far precedes the question of permanency. In many instances the physical exertion of patient and operator are paramount to everything else.

In many other instances, however, the question of permanency and lasting comfort supersedes every other consideration, and as long as dental caries and human susceptibilities cannot be reduced to a mechanical basis, upon which all restoration is made, gold and porcelain must march side by side and properly supplement each other.

Extreme views of any kind have always been of short duration. Extension for prevention had its battles and is now reduced to a basis where it will stand until nature changes its laws in the oral cavity.

Gold has been the greatest and safest bulwark against decay the profession possessed for years. The time may arrive when all ideal qualities become concentrated in porcelain. Until that time let us be just, discriminative and true to both. Truth, simple as it is, gives us much trouble in applying it to any practical purpose and without partiality.



Second District Dental Society.

January Meeting.

A regular meeting of the Second District Dental Society of the State of New York, was held on Monday evening, January 9, 1905, at the Kings County Medical Society Library Building, No. 1313 Bedford avenue, Brooklyn, N. Y.

The president, Dr. Gould, called the meeting to order.

The Secretary read the minutes of the previous meeting, which, after slight correction, were approved.

Dr. Jarvie read the report of the committee appointed to draft resolutions of regret on the death of Dr. Mirick.

On motion the report was received.

Dr. Jarvie also moved that the resolutions be properly engrossed and sent to the family of Dr. Mirick. The motion was carried.

Dr. Hamlet read the resolutions of regret on the death of Dr. Hepburn. On motion, the same were adopted.

There is probably no subject engrossing the attention of the profession to such an extent today as that of a comparison of gold fillings and porcelain inlays. We are fortunate in having friends of the Second District Society who are as competent as any in the country to discuss this subject, and I also want to say we are extremely fortunate in having the essayist of the evening with us tonight, as he has been quite ill. Dr. Hofheinz personally will need no introduction to you. It will now be our pleasure to listen to him.

President Gould.

Dr. R. H. Hofheinz, of Buffalo, then read the paper of the evening.



Discussion on Dr. Hofheinz's Paper.

Dr. Darby, who was to have been with us this evening, has unfortunately met with an accident. **President Gould.** Dr. Jarvie has a communication from him which he will read before we proceed with the discussion of the paper.

Dr. Jarvie. This is a letter received today by Dr. Hofheinz from Dr. Darby:

LANSDOWNE, PA.

MY DEAR DR. HOFHEINZ: It is a great disappointment to me that I cannot have the pleasure of meeting you, and hearing your paper on Monday evening. I am laid up in bed with a bad knee, and my surgeon will not allow me to take a step upon it for the present. Dr. Jarvie will explain to you the nature of the accident.

I wanted to talk upon the subject of your paper, for I have given it a good deal of thought during the last seven years. The subject of porcelain inlays is one which has been engaging the attention of the profession as almost nothing else has done during the past few years, and the tendency of many has been to carry it to an extreme which I feel confident they will regret a few years hence.

It is undoubtedly true that porcelain inlay work has come to stay, but it will be used in a *modified* way. I am doing many things with porcelain that I am delighted with. I have done some things with it that I am not at all pleased with, and in some instances have done them over, using gold instead of porcelain. Men too frequently ride a hobby until they kill it, and the tendency with some has been to use porcelain in *all* places, where gold in many of them would have been better.

I am pleased with the synopsis of your paper, and wish I could hear it. The cement problem is an important one in connection with inlay work. "No chain is stronger than its weakest link." No inlay is better than the cement which holds it in place. After all it is the conservative man that does the best for his patient and porcelain work will be valuable or otherwise just in proportion to the careful discrimination which is exercised by the man who uses it.

With kind regards and many regrets that I must stay in bed rather than be with you to-morrow evening, I am,

Sincerely yours,

"Jan. 8, 1905

EDWIN S. DARBY."

On motion of Dr. Jarvie, the following telegram was sent to Dr. Darby:

SOCIETY DISCUSSIONS

"The Second District Dental Society learns of your accident with deep regret. It sends you its sincere sympathy and best wishes for a speedy recovery.

HORACE B. GOULD, *President.*"

President Gould. We will all be glad to have Dr. Head give us his thoughts on the subject, for we know he fairly eats porcelain.

Dr. Joseph Head, Philadelphia. The remark of the President was particularly happy—concerning eating porcelain. It reminds me very much of something that was said by a little patient. He had heard a great deal of porcelain fillings—he afterwards said, kindly enough, that they had been put in by other dentists than myself, and he said he would rather have gutta percha put in his front teeth now as he was not fond of eating porcelain.

And yet, any man who goes into porcelain work has to eat humble pie before he can learn, and his patients may have to eat a few porcelain fillings; but then, no doubt, some of our patients have already taken the gold cure, too! We must remember that porcelain is one of the frankest fillings in the world. If anything ever is the matter with that filling, out it drops. You can have your gold filling with a dark line, that have failed, and yet that very filling may give you the reputation of having put in a good filling for five or six years; every man who does not recognize that, I think is very fond of gold fillings. In fact, I think he also has taken the gold cure.

The points in Dr. Hofheinz's interesting paper ran up to No. 56, I believe—I really lost count of the number of good points he made—but I was sorry I could not read the paper beforehand, because I think I would have disagreed with about forty-nine of them. (Laughter.)

Dr. Hofheinz. Pardon me, doctor, but I think you disagree with me in even more points than I mentioned to-night.

Dr. Head. I cannot speak of all those, but I think if Dr. Hofheinz had had the experience with porcelain that he will have about fifty-seven of those points would have been left out! I am going to speak frankly of my position as an inlay worker, and what inlay work has taught me.

I want to speak of a curious observation I made in relation to the laying of some water pipes in our town. They laid them in sections of one mile, and they made lead seals around the joints; first they made a mould around each joint then poured the lead in, and then with a steel instrument they hammered that lead in to make a good joint so it would be water tight. I thought if we could only put in gold that way we would be pretty nearly sure. I say "pretty nearly sure," because even though

ITEMS OF INTEREST

that engineer had iron to hammer against and the lead was in absolutely the best possible position for making an absolutely tight seal, he kept those places open in mile lengths, and tested them before he put the earth in. He knew that this hammering process under the most favorable circumstances was liable to err, and if that extreme care had to be taken with lead hammered against cast iron, how can we, hammering gold against tooth enamel know that we get perfect edges? And we talk of the permanent gold filling! Which would you rather have—a permanent temporary filling, or a temporary permanent filling?

The gentleman who puts in a gold filling now in the ordinary way, hammering that into tooth structure on bare enamel, is behind the times. The inlay worker has taught him nothing; yet I know there are plenty of good workmen who do it. Heaven knows I have lots of cobwebs in my own brain, but thank the Lord that is not one of them. When we have not the power of putting in a gold filling so that when we are done we can hold up our hands and just as surely as the sun rises say, "Those edges are perfect"—when we do not put in a filling that way we are not living up to the light of the twentieth century.

Filling with Gold and Oxyphosphate.

Every one knows that a gold filling can be put in on cement, and in a very easy and rapid way—just as solidly in the following manner, which has been described many times but which can, perhaps, not inappropriately be described again. The cavity should be prepared with all the care possible—not extension for prevention, but as Dr. Black showed in his talk last December, extension for removal. The bugbear we have always had—thinking we were cutting away to prevent future decay—as he proved by his slides was what anybody would do if there were infected enamel. In each instance he shows that it was done to cut away those parts that were infected, but did not appear to be; therefore, we will have our cavities prepared according to the lines of extension for removal; and then, contrary to some of the gentlemen out West, having thoroughly sterilized the cavity and dried it, we will take creamy oxyphosphate of zinc and press down upon that moss fibre gold that has been freshly annealed. This can be pressed down in such a way that there will be a fine layer of cement all over the surface of that cavity. While the cement is setting, the moss fibre gold can be packed firmly upon it, and when a sufficient body of gold has been obtained to allow proper manipulation, the edges can be properly cleaned, and then we can start with our Bonwill mallet, and with our other devices, as we see fit, and finish that filling; but we will have an adhesive gold filling—a filling that is protected by cement up to the edges—that has all the

SOCIETY DISCUSSIONS

advantages of the undercuts—of the adhesion. The enamel rods are absolutely protected by the supporting cement, and we know under those conditions, as I have known for the last six or eight years—for I put in such fillings as long ago as that—decay will only occur around that filling when it starts initially—new again from the outside and not from a leak. In my opinion leaks are responsible for nine-tenths of the failures. Therefore, I believe, gentlemen, that the gold filling put in according to the inlay principle is the most permanent filling that the hand of man and the mind of man have yet advised. I think there is no question about it. Anybody who has worked gold will know that gold has the power of resisting crushing force much better than porcelain, but I shall have to limit myself to a little further dogmatism. I want to say that the man who puts in a porcelain filling against a cervical margin and as a rule has those fillings come out, or the cement disintegrate, does not know how to put them in. I say that point-blank, and every porcelain worker knows it. And then to say that the cement is affected by the fluids at the cervical margin—why we know that is just where it lasts best!

Porcelain a Preventive of Erosion.

Dr. Miller, of Berlin, wrote an article which was published in the "*Cosmos*" in which he spoke of even gold fillings having lines going through; and he said distinctly porcelain fillings in his opinion had been the only ones that were capable of stopping erosion at the neck. I have noticed hundreds of cases where I have been able to retard, if not absolutely stop the erosion at the neck of the tooth by means of porcelain fillings. Of course, the patient has to use milk of magnesia and take the ordinary precautions. If a mouth is inclined to be hyper-acid, I see that the patient counteracts it. In many instances I have been able to make these mouths, by careful prophylaxis, so that they were no longer dangerous.

Incisive Cavities.

Where our dear friend says that the six front teeth are all that a man has to masticate on, I confess he would better not put porcelain fillings in those front teeth. When he has only those front teeth on the upper jaw to bite on, I should strongly advise that porcelain fillings be not used. I have a case now of a lady who has one bicuspid on one side, and she chews mostly on the upper front teeth. I have to replace those porcelain fillings about once a year; but she reminds me of our dear friend Ottolengui's little story of the lady who preferred cement fillings to gold ones, saying, when he told her the cement was not so permanent as the gold: "Perhaps, but I would rather be temporarily beautiful than permanently ugly!" This lady has exactly the same theory.

ITEMS OF INTEREST

Dr. Jarvie. May I ask Dr. Head in what way did those porcelain inlays give out that he had to replace about every year?

Dr. Head. Sometimes she smashed the porcelain and sometimes she smashed the enamel of the tooth.

Dr. Jarvie. It was not a case of the inlays dropping out then?

Dr. Head. Well, they dropped out when they got ready. (Laughter.) It was not the washing out of the cement at all. Really, I did not mean to be frivolous at all, Dr. Jarvie. These places are the hardest I have to protect. When you have a girl who cannot bite more than forty pounds, and ordinarily will not bite more than fifteen or twenty pounds, it is all right; but when you get one of those old codgers who chews tobacco, why he will eat them right up. I have even had them eat gold up. I guess Dr. Hofheinz has had the same experience. You put the gold in with a Bonwill mallet, and if it is not like cast gold, it is so near it you cannot tell the difference. Where you have a leak about the cutting edge—cut it out and make a cavity that comes right up to the porcelain. Take the sponge gold—have it thoroughly annealed, put in creamy oxyphosphate of zinc, press in the gold, and bring it slightly over the edge, just back of the enamel line to protect it as much as possible. Put in a good strong gold filling that slightly overlaps that porcelain, and I have in many instances found it satisfactory. I do not know of anything that gives absolute satisfaction. I think each year I find a new reason why fillings fail, and the man who never has any failures either has very little experience, or his remarks are not very trustworthy.

I want to say this, however, concerning those fillings that Dr. Hofheinz has dwelt on, that come to the grinding surfaces of bicuspid and molars, and I believe he also said in cuspids—if anybody thinks he is going to put in a porcelain filling especially in bicuspid and molars, that come to the grinding surface, and never have them chip on the edge, he will be disappointed, because porcelain wherever the enamel is unprotected by the slight washing out of cement will disintegrate under the force of mastication. Do not lay the fault to the porcelain filling when you make a bad joint. I have seen many porcelain fillings that received the blame where the blame lay with the operator; and I guess we have all seen many gold fillings that received the blame where the blame lay with the operator. I am not one of those who always speak as though it were a question of doing perfect work every time. Everybody has a certain factor of error; but where you are finding fault with the filling, be sure it is the filling and not yourself.

SOCIETY DISCUSSIONS

Under those conditions, I should judge this way: If I put in certain fillings up at the cervical margin, and I had a very large percentage of failures, and a number of my friends in whose honesty I trusted, put fillings at the cervical margins and they lasted, I should think there was something defective in my manipulation.

Approximal Fillings.

Concerning the means of making bicuspid and molar approximal fillings, permanent, there is only one way that I know of—to look the fact in the face, and because a little defect develops, not to find fault and expect more than you have a right to expect. You put in a good porcelain filling, and if by the grace of Divine powers that edge comes where the force of mastication does not come, it will not chip; but if it comes where it receives the full force of mastication, the probabilities are that it will chip, no matter whether it is the Jenkins body, the high or low fusing, or any other—it will chip. The way to do is to put your filling in, and if you are lucky, in a year or two, when the patient comes back you will find there is only a little place, perhaps, not more than a quarter of an inch wide, that is chipped. (Laughter.)

Put on the rubber dam and taking the finest possible fissure bur or inverted cone, you cut that right out, then you make a flat bottom, put in a little creamy oxyphosphate of zinc after wiping it out with alcohol, and put in moss fibre gold; let it set, condense it, and fill it up to the edge, and you will never hear from it again, and it does not show. I have had to fill lots of them that way. If you do not want to fill them with gold, you can fill them with amalgam in the back of the mouth, and they will look very well. If it were a case such as Dr. Hofheinz spoke of, of a lady who had that extremely sensitive tongue that would feel that fine line, why I should think in a case like that, if it kept her awake nights, I would cut that out and fill it in with a little gold and amalgam.

I have not covered half the points I wanted to, but I have taken up a great deal of your time. I have enjoyed being with you, and have especially enjoyed the masterly way in which Dr. Hofheinz brought up his points. I was brought up to use gold. I thought I could use it as well as gold could be used, and there are lots of us who can; but gold has its limitations, and when you put gold in approximal cavities where they do not show, the light shines through and it looks bad. There are many good things in favor of gold, and many good things in favor of porcelain. The man who uses only gold is shutting himself up in the dark, and the man who uses only porcelain is looking at the sun without dark glasses.

President Gould.

A friend upon whom one can call in an emergency, is a friend indeed. When I heard Dr. Darby could not come, I called on Dr. John I. Hart, of New

ITEMS OF INTEREST

York, on Sunday, and I found we had such a friend in him. We will be pleased to hear from him now.

I feel it is unfortunate that I had no opportunity until a few moments ago to see Dr. Hofheinz's paper, and I was so lost in admiration as he unfolded his views, that I made but few notes; consequently, I must ask you to excuse me for making only a few casual remarks, rather than a full discussion, of which his paper is worthy.

I cannot help but feel, having listened to the gentlemen who preceded me, that conservatism begets conservatism; and when any subject is handled as conservatively as this is being handled, we are bound to derive benefit from its consideration. The subject as presented but confirms me in the impression that gold is still the chief reliance on which we are bound, as dentists, to depend, and that porcelain is a most satisfactory adjunct. One of our best porcelain workers admits some failures in porcelain. Now conceding that we do meet with some failures in gold, my guess would be that there is one failure out of one hundred in gold, where probably there are fifteen or twenty out of a hundred in porcelain. I do not think that statement lacks conservatism. That is our position as dentists. We must do permanent work as far as we are able. We have all of us seen metal fillings that have saved teeth for from twenty to thirty years. It is not the exception; it is the rule. (Applause). I am not saying this in any sense that I may play to the galleries at all; that statement is true. Those of us who practise in cities are treating people who are away from us a large part of the year usually, and we cannot take chances with porcelain as a filling material; consequently I reiterate that it is an adjunct that probably should be used in seventy-five cases out of a hundred on labial surfaces. On approximal surfaces involving corners, we have a great question to consider, and that is the thickness of the dentine plate between the labial and lingual or palatal surfaces, as the case may be. If we are dealing with a long thin tooth, and a heavy bite, you must sacrifice an enormous amount of tooth structure to anchor for porcelain fillings, and one of the first claims that was made for porcelain was its safety as far as the pulp was concerned. If a minimum amount of cutting will suffice to anchor for a gold filling and a maximum amount of cutting is essential for a porcelain filling, our saving of pulp tissue is questionable. We are not always responsible for the conditions that present themselves. Aesthetics should be considered, but aesthetics need not be considered if it is going to undermine our reputations.

I cannot agree with the essayist as to the effect of the secretions on the cement which holds a porcelain filling near the neck of a tooth. I

SOCIETY DISCUSSIONS

think more frequently failure at that point is due to not crowding the gum away sufficiently at the gingival border, and not obtaining a perfect matrix at that point, than to the dissolving influence of the mucus secretion.

President Gould.

We have with us Dr. Gaylord, of New Haven, and I will now call upon him.

**Dr. Gaylord,
New Haven.**

I am here to listen, not to speak. When I heard that Dr. Hofheinz was to present a paper here, I felt positive that he had something which I could not afford to miss, nor could I afford to stay at home and wait until our publishers saw fit to print the same in six or eight months. I have enjoyed the paper immensely. I do not remember to have listened to a paper that is so thoroughly in conformity with my own ideas as this one; and yet, as he was reading his different points, I thought he laid himself open very largely to attack; but he so consummately protected himself before he finished that he leaves me nothing to say. I, therefore, indorse the paper as one of the most satisfactory I have ever heard.

**Dr. M. L. Rhein,
New York.**

I heartily echo all the sentiments that have been so beautifully expressed by my friend from New Haven in regard to the paper. There are a few minor points in the latter part of the essay—I missed some of the beginning—with which I differ a little. I differ with the essayist in the sweeping assertion he makes as to the occlusal surfaces of all molars. I differ with him in regard to the disto-approximo-occlusal portion of the third molar. Perhaps if he gives it a thought, he will coincide with me in this particular exception. I think this is a very favorable position for a porcelain filling, in comparison with what we can obtain with a first class gold filling, and it is this point in the essay that I am speaking about. He is discussing first class fillings—he is not discussing operations that have become failures through imperfect manipulation. It is a very difficult matter to insert a first class gold filling in this position, and it is an easier position to insert a first class porcelain filling than any of the posterior approximo-occlusal surfaces, provided the teeth are in their proper positions. I made special note of one point, and it gives me great pleasure to approve of it. It is so rarely that we in New York get an opportunity to coincide with Dr. Head that I cannot let this opportunity go by. Dr. Head gave a method of repairing the chipping of porcelain fillings when it was necessary—that I want to approve of as being eminently satisfactory, where we meet with such accidents. The point made by Dr. Hart where he differed with the essayist, I agree with thoroughly. I cannot agree that labial surfaces are unfavorable for porce-

ITEMS OF INTEREST

lain inlays, on account of the cement question brought up by the essayist. I think it is due to faulty manipulation of the operator. It is impossible to say where the fault is, because I believe each case must be judged by itself. In regard to those labial and lingual surfaces, I have come to the conclusion that it is a mistake to suppose that such fillings can be made as shallow as they frequently are. I do believe if the porcelain inlay in these places is made in as first class a manner as the margins are adapted, there is too insufficient an amount of the cement in there at any time to become a factor in the disintegrating process spoken of by the essayist.

I can but indorse what has been said by our good friends, Dr. Gaylord and Dr. Rhein, and a portion of the remarks of Dr. Hart. I feel we have perhaps all overstepped the bounds of porcelain. I am as much a porcelain enthusiast as I used to be a gold enthusiast. Just the same, I think conservatism is the thing we should all take into consideration. If we follow in the main what Dr. Hofheinz has told us, we will be nearer correct than if we accept either one or the other material as the one par excellence.

I cannot agree that the cement is a factor in failures of labial cavities. I believe it is rather due to faulty manipulation than anything else. I cannot agree with Dr. Head in his statement that it is impossible to make corners that will not come out.

Dr. Head. May I make that clear? I said where there were only the six front teeth to be used for chewing.

Dr. Van Woert. My failures have been due to Van Woert, and not to material. I believe corners can be put on centrals and laterals and cuspids even if there are only six front teeth, so that they will stay there. I think it can be done better with porcelain than with gold—at least that is my experience; but it would seem to me if there are only six anterior teeth for the work of mastication, there should be some substitute made to take the strain off those six front teeth. That is the best way of preserving those fillings, whatever they be—gold or porcelain.

I believe porcelain has come to stay, and that in many cases it is far more successful than gold. Dr. Hofheinz shows some gold inlays. There is only one conclusion to draw, and that is the possibility of burnishing and covering up the cement line with gold.

Dr. Hofheinz. It was gutta percha in this instance.

Dr. Van Woert. In one of the works published on porcelain a method is given whereby a matrix is formed of heavy gold, I think 36 heavy plate pure gold—left on the

SOCIETY DISCUSSIONS

inlay when inserted, and after finishing down it leaves a thin line of gold which can be burnished and practically cover the cement line. This method for large fillings in molars and bicuspidis I have found to be as valuable as any we have had. Some of you have seen this work. Dr. Dills displayed a portion of his mouth where he is wearing some of it, and I believe it comes nearer perfection than anything I know of in that line.

I want to say I have enjoyed the discussion very

Dr. Wm. Jarvie. much indeed, starting with the paper presented by Dr. Hofheinz, who has gone into the question very carefully as to the most desirable places in which to use gold and porcelain, according to our present standards. In all the discussions, I think we lose sight of the fact that many years of practice in gold work has made our work practically perfect—that is, the majority of our gold operations can be made almost perfect. We are comparative novices in the use of porcelain, and I find that the more men have experience in porcelain, the more extended is its use in their hands; that while in commencing the use of porcelain the range of places would be limited, as they become more accustomed to it the range of its use becomes more extended. In fact, we have some operators who use it in almost every cavity in the mouth, and they think to better advantage than any other material; and their opinion is entitled to a great deal of respect, because they have had the experience that most of us have not had. There is one class of cases that has not been mentioned, where porcelain, I think, would be exceedingly useful, and that is in cases of excessive decay of the bicuspidis and molars, where we do not want to use amalgam on account of the appearance—for aesthetic considerations. We can use porcelain in many of those cases, which is much more permanent in its lasting qualities than the oxyphosphate of zinc, and as far as restoring the contour and the appearance is concerned, it is much better than any other material that could possibly be used in such teeth. I am speaking now of frail teeth that are largely decayed—bicuspidis and molars. With care and thoroughness of manipulation, porcelain fillings can be put in such places and will prove of considerable permanency. We cannot speak positively of the permanency of porcelain inlays, because they have not been in use very long. How many porcelain inlays were put in by any gentlemen in this room five years ago? I believe a very small number. Our experience to enable us to pass on the lasting qualities of the material is very slight. I believe porcelain has come to stay and will be one of the most valuable agents for the purpose of preserving teeth.

I will try to answer all the questions that have

Dr. Hofheinz. been asked during the discussion.

As to Dr. Jarvie, I have mentioned the extensive

ITEMS OF INTEREST

cavities in bicuspid and molars in the last paragraph of my paper, giving porcelain the preference.

I think Dr. Hart, Dr. Gaylord and Dr. Rhein misunderstood me in regard to labial cavities. I give the preference to porcelain in almost all labial cavities excepting the few which we find not upon the enamel, but mostly upon the cementum itself, entirely due to the hyperacidity of the mucus membrane, which may be spasmodic or become permanent and lead to extensive erosion.

Dr. Rhein is correct in saying that it is better to put a porcelain filling in a third molar disto-occlusal cavity or even mesio-occlusal, if the cavity is too inaccessible for gold. I would always prefer to put in a poor porcelain filling to a poor gold filling, because the poor porcelain filling will come out but the poor gold one may remain and cause an extensive decay, leading to an exposure of the pulp.

I was surprised that Dr. Head did not take me to task more than he did. I knew that when Dr. Head would discuss my paper he would discuss it not only as a porcelain enthusiast, but as a broad-minded man, and that was what I was glad to hear to-night. He has given me the very points upon which I base—more or less—my arguments in the paper. He has furnished the arguments to a degree himself.

He speaks of the lead pipe and the mallet. He advocates the filling of gold by placing the gold directly upon the soft cement. That is a very good method. It is the way Dr. Rhein places all his large approximal cavities in bicuspid and molars. I want to cite an instance in my own mouth; I had a large buccal cavity, in a first lower molar, filled twenty-nine years ago—with cylinders—the incorrect way, as Dr. Head says.

Dr. Head.

I did not mention cylinders.

Dr. Hofheinz.

No, but you said the men who filled teeth to-day as they did twenty-six years ago, were behind the times. That filling came out and was refilled twice, the bite having become very unfavorable. The third time it was filled the usual way, together with cement retention. The filling is still in place, and I believe will remain in place, owing to the fact that it has this additional help for being retained.

I do not approve of placing a large gold filling in a cavity of this size (illustrating) and placing the cement practically all over the cavity, to the very margins of the same, I would rather have my enamel prisms supported by the dentine than by the cement, but if there is such an undermining of decay, the cement is necessary. A great many gold fillings should not only have mechanical retention, but the retention should be reinforced by adhesion to the cement itself.

SOCIETY DISCUSSIONS

The argument the doctor started with, in regard to the malletting, I do not quite see the force of; because at the margins of a cavity, whether you have cement underneath or not, the gold must be malletted, and no matter how imperfectly malletted your filling may be underneath, it may remain well preserved, providing the stress is not too great, if the gold is well adapted to the margins by malletting.

Dr. Head.

Have you not heard of burnishing gold?

Dr. Hofheinz.

Yes, long ago.

It can be done, especially when putting in a filling at the posterior surface of a bicuspid. If you put the gold in and burnish down the edge, you get perfect adhesion, and you do not endanger the enamel prisms.

Dr. Head.

I never burnish gold into cavities. I did not understand the doctor in that way. Dr. Herbst, of Bremen, has given the profession a great deal on that subject twenty years ago. If you use the electric mallet, you almost burnish your gold to the margin. It is for that reason that of all mallets I think the electric does the best work against frail margins, possibly because it comes so near to burnishing. The fact that Dr. Head has stopped erosion by putting in porcelain inlays, I think is a coincidence. The conditions of the oral secretions may have become changed, but that will not signify that a porcelain filling will last longer in an erosive mouth than a gold filling. If the conditions have changed, that of course changes the argument.

Dr. Hofheinz.

The very fact that he advocated the placing of gold where chipping of the enamel prisms has taken place is evidence that gold protects them better than porcelain, and that is the strongest argument I made; and where sufficient stress exists we must have gold in preference to porcelain for permanence.

I agree with Dr. Van Woert that if a man has only those six front teeth, he should have some additional support. In spite of a plate, however, there is always the greatest stress on the natural teeth; owing to the mobility of the artificial denture.

I had a tooth ground down only a few months ago, which was also filled about twenty-eight years ago. It was filled on the very principle Dr. Wedelstaedt advocated last December.

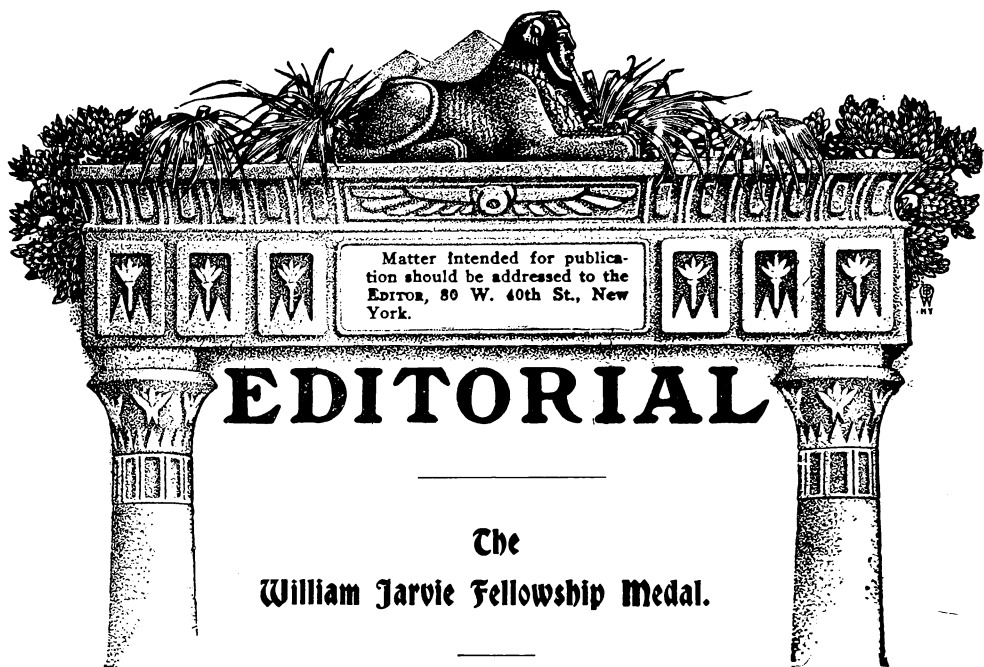
There is a certain amount of permanence to gold which time has not allowed porcelain to demonstrate. There are many men in this room probably who have filled teeth longer than twenty-eight years ago, and they have lasted. I am not unreasonable; I do not say that all fillings should last during the patient's earthly career, but I want it to last twenty-eight or twenty-nine years if possible.

ITEMS OF INTEREST

I am pleased to have had the indorsement of such enthusiastic porcelain men as Dr. Head and of Dr. Van Woert, who is very enthusiastic on the subject. It is just as essential for us to be conservative in the use of porcelain as we should be in the use of gold. There is a permanent place for both of these materials, and it is for us to decide and to study which are the correct places where porcelain and where gold should be employed. I have heard a great deal of nonsense from porcelain enthusiasts, that all cavities in the mouth should be filled with porcelain, and I do not agree with them; that is not the correct philosophy of tooth filling.

Dr. Van Woert moved a vote of thanks to Dr. Hofheinz for his valuable paper, and to the guests who participated in the discussion. The motion was unanimously carried.





The New York State Dental Society, during its recent annual meeting adopted a system of rewarding those who contribute to the progress of dentistry, in a way that well might be followed by other large State societies, as well as by the National Dental Association.

A new style of members was inaugurated, to be known as "Fellows of the New York State Dental Society." The first chosen for this honor is Prof. G. V. Black.

**Dr. Jarvie's
Proposed
Fellowship.**

The following is an extract from the address delivered by the retiring president, Dr. William Jarvie.

"In every country there are some men so devoted to their art or science that their entire time, talents and energies are given up to the work of original research in the direction in which they may be especially interested. These men are content if financial returns be barely sufficient to procure for themselves a most modest subsistence, being amply repaid and feeling rich indeed, if they succeed in adding to the knowledge of science or accomplishing something which may lead to the amelioration of the condition of their fellow-

ITEMS OF INTEREST

man. To such, the recognition and appreciation of the value of their efforts and the pronounced sympathy of their associates in their own profession would tend greatly to encourage them to continue in the field of scientific research, when otherwise discouragement and discontinuance of effort would prevent accomplishments which might be the means of producing the greatest benefits to mankind.

"In our own profession there are those who have devoted years to the investigation of various subjects, with results which have added much to our knowledge, and which assist us in ministering to and overcoming the lesions which it is in our province to treat. To recognize the work of such, and to encourage the investigation of others, I would recommend that a committee of five be appointed who shall report to the society, names of those who, in their judgment, have contributed results of their original research of such a character as have materially advanced the art and science of dentistry, those thus recommended to be awarded a gold medal of appropriate design and inscription and to be elected Fellows of the Dental Society of the State of New York.

"I would also suggest that the first year the committee recommend the names of three gentlemen to be elected as Fellows and each year thereafter but one. If this recommendation be approved by you, I shall esteem it an honor to be allowed to donate to the Society one thousand dollars to be known as 'The William Jarvie Fellowship Gold Medal Fund,' the interest of which shall be used to purchase the medals."

The Proposal Adopted.

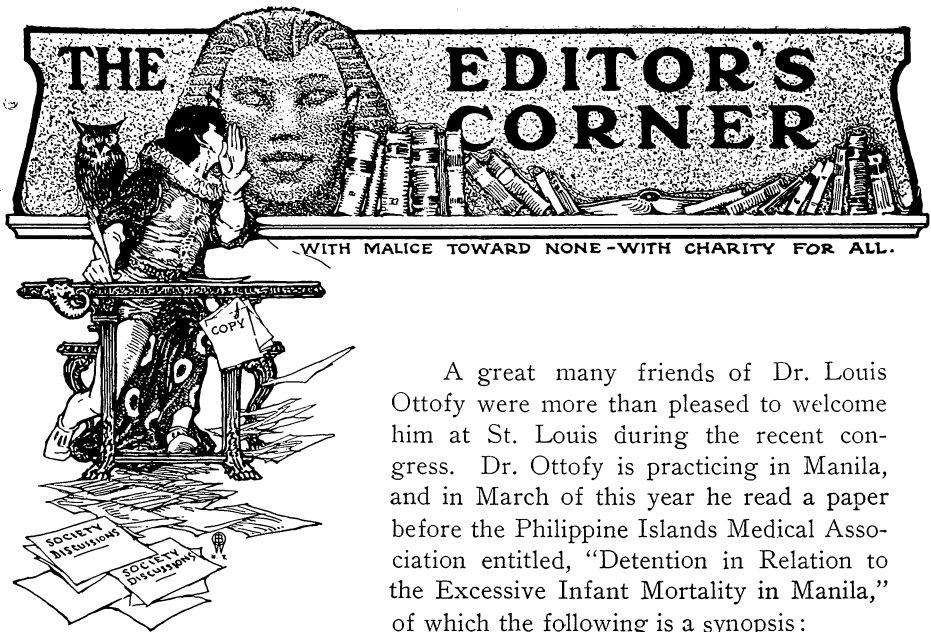
This portion of the address was referred to a special committee who recommended the adoption of the idea with the thanks of the society to Dr. Jarvie for his generous donation. A resolution to this effect was unanimously passed, and the committee of five named as follows: Dr. Wm. Jarvie, of Brooklyn; Dr. S. G. Perry and Dr. R. Ottolengui, of New York; Dr. R. H. Hofheinz, of Rochester; Dr. A. R. Cooke, of Syracuse. This committee immediately held a meeting and suggested a slight change in the original plan. Instead of recommending three "Fellowships" the first year, it was deemed best to name at once only one, Prof. G. V. Black. Three will be nominated for the next annual meeting, and one annually thereafter, the committee deeming it wiser to proceed slowly in order to perfect a rule of procedure in making choice of candidates for an honor so great.

There can be no doubt that this action by the New York State Society will be productive of good results. Too often, in the past, have our fore-



most men gone to their graves to be lauded only after death. When men work by day, and by night, one week after another, month by month, during the best years of their lives, for the advancement of a chosen calling, it is but their due that those who benefit by their labor should in some way show appreciation. The honor bestowed upon Prof. Black, which is at the same time an honor to the conferring society, is a worthy tribute of the high esteem in which he is held throughout the length and breadth of this great land, and wherever the term dentistry is known, and it is a great pleasure to offer congratulations to Prof. Black, and compliments to the New York State Society upon the wisdom of its first choice. At the same time, the whole profession is indebted to Dr. Wm Jarvie for the very generous-manner in which he has inaugurated a laudable scheme.





Dentition and Infant Mortality.

A great many friends of Dr. Louis Ottofy were more than pleased to welcome him at St. Louis during the recent congress. Dr. Ottofy is practicing in Manila, and in March of this year he read a paper before the Philippine Islands Medical Association entitled, "Detention in Relation to the Excessive Infant Mortality in Manila," of which the following is a synopsis:

The writer concedes that dentition is a physiological and normal process; cites numerous authorities to show that dentition since the earliest known medical writers, has been frequently recognized as abnormal and that serious consequences and systemic complications result when the eruption of the teeth is difficult, and mentions a number of disturbances of the general system caused thereby; especially of the digestive apparatus, causing or influencing diarrhoea and dysentery, and of the nervous system, causing convulsions.

During six months of last year out of 3,858 children born in Manila, 3,250 died of whom 1,342 or 44 per cent, died of convulsions and eclampsia in which dentition may have been one of the contributory causes.

He is of the opinion (there being no data or statistics on this subject), that in tropical countries dentition commences earlier and continues with rapidity, and that therefore the infant is subjected to a steady drain upon the undeveloped system, which it is unable to withstand. He calls attention to the fact that during dentition the flow of saliva is increased and that an infant erupting teeth with difficulty and in rapid succession, swallows incredible quantities of saliva charged with micro-organisms, which exert a deleterious influence on digestion.

He recommends free lancing of the gums, intelligently, thoroughly and aseptically performed. Reviews the history and literature on the sub-



ject of gum lancing and cites numerous authorities showing a preponderance in favor of the operation; those opposed to it are shown to be in the minority, due to a misconception of the conditions or a lack of experience and study along these lines.

He suggests that the Board of Health post cards of instruction on the care of infants in native dialect in every room where there is a child, and that dentists rendering their services gratis be at some one sanitary station in the city, daily for one hour to give relief, and they furthermore render aid free of charge, at any place in their offices or homes, day or night, and thus relieve suffering and eliminate, so far as possible, from the death roll those who are dying for want of this service, intelligently rendered.

**The Use of
Camphor
in Matrices.**

We are indebted to Mr. L. A. Jenkins for the following information in regard to the use of camphor in making matrices for inlay work:

"Somewhat more than one year ago Dr. C. C. Allen, of Kansas City, suggested the use of gum camphor to obtain close adaptation of gold or platinum matrices and to facilitate the removal of such matrices without bending. A great many men are making use of this valuable suggestion, but results are not always entirely satisfactory. This is due frequently to the fact that American refined gum camphor is used instead of the Japanese refined product. The latter is far less friable and works particularly well when slightly warmed. It should be packed into place with warmed instruments."

**Consul Worman
Complimented.**

The following complimentary resolution was passed by the Institute of Dental Pedagogics on motion of Dr. Hart J. Goslee.

"Whereas, Mr. James H. Worman, American Consul at Munich, Bavaria, having worked long and faithfully to place the reputable Dental Institutions of the United States in the position to which their merits entitle them, and to discredit the institutions which are not worthy of recognition, we desire to express to him our sincere appreciation of his efforts.

"Resolved, That the Institute of Dental Pedagogics hereby most heartily thank Mr. Worman for the untiring efforts which he has made in presenting to the authorities of Germany, the true status of Dental Education and Dental Educational Institutions in the United States.

"Be it further resolved that a copy of these resolutions be forwarded to Mr. Worman."

Errata.

In the April issue, on page 275, Dr. W. Storer How is credited with having originated the round porcelain inlay in 1867. This is an error as the date should have been 1888. Our attention is called to this by Dr. How, who

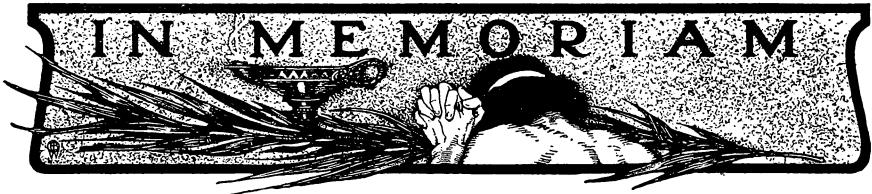
ITEMS OF INTEREST

made a similar correction in regard to this matter in the *Cosmos* for August, 1904, at which time his letter read as follows:

"To the Editor of the *Dental Cosmos*: Dear Sir—On page 659 of the August, 1904, issue of the *Cosmos* the sentence, 'The round porcelain inlay operation—originated by Dr. Wm. Storer How, of Philadelphia, in 1867. . . .', is incorrect, inasmuch as my name in full is Woodbury Storer How, and the date of the original article is 1888, as published in the August *Dental Cosmos* of that year. The erroneous date is, however, the only adequate reason for directing attention to the misinformation.—Yours truly,

W. STORER HOW.

"Philadelphia, August 10, 1904."



James^W Wood^J Slonaker.

Dr. James Wood Slonaker, of Chicago, Ill., died at Denver, Colorado, Wednesday, March 22, 1905, of diabetes mellitus.

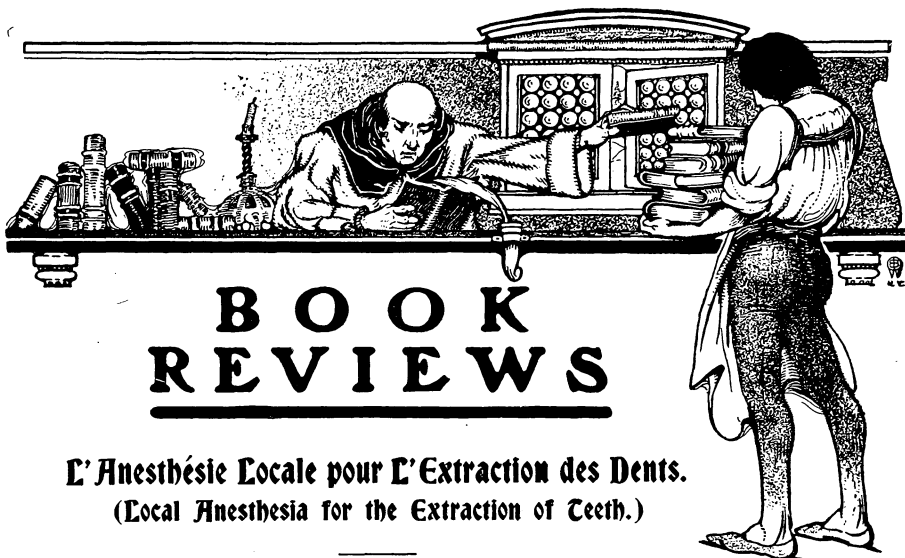
Dr. Slonaker was born at Jerseyshore, Pa., September 20, 1858. He received his early education in the public schools of Philadelphia, and later graduated from the high school of that city.

In 1881 he graduated from the Philadelphia Dental College and immediately thereafter decided to make a specialty of the extraction of teeth, and associated himself with Dr. Thomas of the same city where he remained until December, 1889.

In January, 1890, Dr. Slonaker located in Chicago, for the purpose of following the same specialty, and succeeded in building up a lucrative practice, which he enjoyed until a short time before his death. He was an active member of the Odontographic and Chicago Dental Societies, and of the Delta Sigma Delta Fraternity.

Always of a kindly and courteous disposition, and an exemplification of genial good fellowship Dr. Slonaker won the good will of all who knew him, and left a multitude of friends to sympathize with the bereaved widow in her grief.

The remains were interred in Oakwood Cemetery, Chicago, on Saturday afternoon, March 25, 1905.



By DR. SAUVEZ, Dentist to the Hospitals and Professor at the Ecole Dentaire, Paris.
 (With a preface by Professor Reclus. Vigot Frères, publishers, Paris, 1905.)

This excellent and exhaustive treatise upon local anesthesia, was presented and read by its author, in the French language, before the Fourth International Dental Congress at St. Louis. Prior to its being read, a summary in English, briefly outlining the scope of the paper and giving the writer's views and conclusions, was distributed. The present work may be considered a duplicate of the paper as read; a note, however, referring to two fatalities from somnoforme, reported in September last, is evidence of the author's care to make his book well up-to-date.

In his introduction, the author expresses surprise that his confrères in the United States, and also in England, continue to use general anesthesia, and exclusively nitrous oxid in tooth extraction. That at its advent, when its properties were imperfectly known, the use of cocaine was attended by untoward accidents and incidents, he admits; as the years have passed, however, it has become better known, and has been found so satisfactory in dental practice in France as to warrant, he thinks, its more general use. It was this that prompted the presentation of the paper to the Congress, to make known the decided advantages of local anesthesia for tooth extraction, and the ease, safety, and certainty, attending the use of cocaine for this purpose, when its properties, proper

ITEMS OF INTEREST

dosage, method of administration, cautions to be observed, and its limitations are understood and appreciated.

While admitting that nitrous oxid is the safest general anesthetic known at the present time, and that reported fatalities from its use have been few in number, he considers the many untoward incidents attending its administration, of which no reports are made, trifling in some cases, more serious in others, should count in estimating its advantages and disadvantages in comparison with local anesthesia. In this connection he quotes a witty saying of Prof. Reclus, "for an accident to count it must be fatal."

The subject is considered systematically, and with admirable fairness. He first considers the dangers and inconveniences attending general anesthesia, before, during, and after the operation. It is generally recognized that certain derangements of vital organs, and certain disorders, increase the risk attending general anesthesia from a point requiring caution to its absolute prohibition. The physical examination necessary to ascertain whether these conditions do, or do not exist, and the necessity of providing medicaments and instruments, and having them ready for instant use in case of accident, is cited as an inconvenience encountered prior to the administration of a general anesthetic. The constant watchfulness the operator must maintain of the pulse and respiration in order to detect the first sign of danger; the inertness of the patient, and the possibility of untoward results in spite of all care, are among the inconveniences experienced during the operation. The violent headaches, more or less prolonged nausea, and some times insomnia, are frequent after effects. He refers also to public and legal censure that is silent when death results from an anesthetic administered for the performance of a serious surgical operation, but is unsparing when the operation is the extraction of a tooth. He is not unmindful, however, of the great advantages of a general anesthetic that for the time being holds in abeyance the patient's will; nor yet that anesthetic agents recently introduced have promise of usefulness in dental practice.

He next considers the dangers and inconveniences of local anesthetics. The risk of a fatal result does not exist, he claims, unless the dose is excessive. He quotes from work by Professor Reclus, who has done much to increase the usefulness and safety of local anesthesia by cocaine, wherein he contends that the accidents attributed to cocaine are due to errors of dose or elementary faults in the technics of its administration. Professor Reclus has had a large experience in the surgical use of local anesthesia by cocaine, and has found it safe and satisfactory, not only for operations quickly performed, but in those also which have required considerable time.



Dr. Sauvez recognizes that some patients are peculiarly susceptible to cocaine as others are to morphia, and that in these subjects it may be followed by various unpleasant effects; and also that in some cases it is contra-indicated, in for instance, the anæmic, the debilitated, the very nervous, and sufferers from heart trouble, but with these he justly says, general anesthesia is also strongly contra-indicated, above all, for the extraction of teeth.

When the tissues around the tooth are highly inflamed, or in difficult or complicated cases of extraction, he has not found local anesthesia so satisfactory, and a general anesthetic is in such cases advised.

Dr. Sauvez gives a very full and well-written history of the various processes for producing local anesthesia other than by cocaine, which have been from time to time presented to the profession. He then considers at some length, the physiological properties of cocaine and its derivatives, comparing them, the one with the other, and reaches the conclusion that chlorohydrate of cocaine is preferable as a local anesthetic.

He gives careful consideration to the various vehicles other than water which have been recommended for making cocaine solutions. While some, theoretically, have much to commend them, he finds by practical experience that distilled water answers all requirements. After much experiment he has settled upon a solution of one per cent. as being quite sufficient for all cases of tooth extraction. On this point, Prof. Reclus and Dr. Sauvez are in accord. For long operations, where the field of operation is extended, Prof. Reclus reduces this one-half, in order to obtain the anesthetic effect over a large surface without exceeding the dose limit of cocaine.

Dr. Sauvez places the dose limit at three centigrammes of the alkaloid. For all ordinary cases of tooth extraction one centigramme is sufficient, and this may be safely administered with the patient in a sitting posture; in complicated cases, two, or even three centigrammes may be required. In these cases, however, the patient must be placed in a recumbent position, and should retain this position for several hours after the operation is completed. On this he lays especial stress. The addition to the solution injected of agents to counteract or antagonize the systemic effects of cocaine he considers a useless, if not indeed a harmful procedure. They frequently prove a local irritant; are always a complication, and are not needed unless the dose limit is exceeded. The pain of tooth extraction, he considers, is due to the rupture of the alveolo-dental ligaments; if the territory in which these are situated is anesthetized the operation will be painless, nothing is gained by injecting more than is required to effect this in the effort to make the anesthesia more pro-

ITEMS OF INTEREST

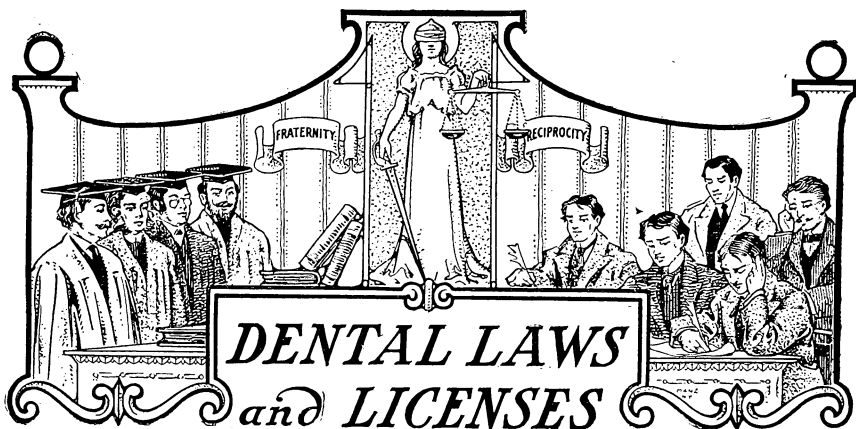
found. He devotes considerable space to the technics of the operation, and insists on thorough asepsis before, during, and after the operation, not only of the instruments and solution, but also of the mouth and especially the immediate field of the operation. He prefers to make the solution immediately before it is used; if prepared beforehand, it should be kept with exacting care to prevent contamination.

He considers at some length the various anesthetic and refrigerant agents which have been from time to time used as local anesthetics, the technics of their administration, their peculiar properties and relative values, concluding with a new agent but recently introduced under the name of "stovaine." This, used hypodermically, is said to be less toxic than cocaine, while equally effective as an anesthetic.

Dr. Sauvez's work is the most exhaustive of those so far published upon local anesthesia, as it is also the most recent. The information it contains will be new to many, and useful to all who make use of this agency in their daily practice. We hope it will soon be made accessible to English readers, for whom it was especially written, and its practical usefulness thereby widened.

W. H. T.





The Status of Reciprocity in Various States.

It is a well known fact that while a great many State boards were represented at Asheville when the so-called Asheville Resolution in relation to interchange of licenses was adopted, only a limited number have agreed to interchange in accordance therewith. We have therefore corresponded with the secretaries of the various boards in order to learn the attitude of these boards towards this interchange and their reasons if any why they have not acted in accordance with their vote at Asheville. The following is a resumé of the replies received to date:

The secretary of the Alabama State Board writes that the board is heartily interested in carrying out an effort towards interchange of licenses. They have been unable, however, to act under the Asheville Resolution because a clause in their law makes it impossible. The legislature meets only once in four years, and the board expects to ask for an amendment to the law at the next meeting of the legislature.

The secretary of the Indiana State Board reports that the board is in perfect accord with the Asheville Resolution and has arranged an interchange with New Jersey. They have offered to interchange with Ohio, Michigan, Mississippi, Pennsylvania and others unsuccessfully. Their State is now and at all times ready to enter into reciprocal agreement with any State whose requirements are the same as those of Indiana.

The secretary of the Maryland State Board reports that they favor the Asheville Resolution, but that the council for the board declares that the law of Maryland would not permit such interchange. He further says a discretionary clause in their law gives them the power to waive an examination in the case of any reputable graduate regardless of the length

ITEMS OF INTEREST

of time he or she may have practiced, so that there is no obstacle in the way of recognizing a graduate dentist who is endorsed by the board of another State after a practice of five years or more.

The secretary of the Massachusetts State Board writes as follows: "The Massachusetts Board of Registration has not accepted nor adopted the Stockton Resolution as recommended by the N. A. D. E. and will not until they are convinced that the general pledge to exchange certificates will not do more harm to the public, whom they are pledged to protect than the benefit to the comparatively few dentists who are now affected is worth; also until there is further action and change in the law of the many States that accept a diploma in place of an examination."

"The secretary of the Minnesota State Board writes as follows: In reply to yours asking the attitude of the Minnesota Board in regard to the Asheville Resolution will say that the members individually are in favor of it, but do not feel that the law allows such an arrangement to be made. There are a number of things in the present law which the Board would like to change, but owing to certain conditions it has been thought to be unwise to attempt to secure the desired legislation at the present time."

The secretary of the Mississippi State Board states that the majority of the members of the board are opposed to the general interchange between the States and also points out that their law prohibits it.

The secretary of the Missouri State Board writes as follows: "I have yours relative to this board's position on the question of interchange of licenses between States replying to which will say that thus far this Board has not issued certificates of registration on this account from the fact that no part of our law would warrant such action on the part of the Board. It is possible that we might be able to get an amendment adopted authorizing this, but at present and for a good many years past the class of people who solicit registration on this ground is not the best and our Board is a little reluctant about taking the matter up. It is equally true that those who request certificates or recommendation from this or other boards are not such as we would desire to recommend. Under some conditions this Board would be in hearty accord with that plan and idea, but under the conditions which environ us at present we cannot consistently do so."

The secretary of the Nebraska State Board is in favor of interchange of licenses and promised to have the matter discussed at their annual meeting in May.

The secretary of the Dental Council of Pennsylvania writes as follows: "Pennsylvania has succeeded in establishing reciprocity in dental licenses between New York and Pennsylvania. Some of the members of

ITEMS OF INTEREST

our Board are in favor of wider reciprocity. A new dental law is before our legislature and I cannot tell what its fate will be. It would be folly to attempt any move in reciprocity until the fate of the present dental bill has been finally decided."

The secretary of the Rhode Island State Board writes as follows: "The Rhode Island Board is a unit in favor of discretionary exchange of licenses. At present we have not agreed with any other State to exchange licenses, but have the matter under consideration and advisement. I understand the subject is to be taken up at the next meeting of the New England Association."

The secretary of the South Carolina State Board writes as follows: "Our Board has not acted on the question of interchange of license. I do not think any member of Board would be opposed to Dr. Stockton's Resolution. Our State law would not prevent an interchange. There has been no request made of us for interchange neither have we made any and thus the matter stands. Will get our Board to act on this question at our next meeting."

The secretary of the Texas State Board states that their law makes no provision for interchange.

The secretary of the Virginia State Board writes as follows: "Our Board has not made any agreement with other boards along the line of reciprocity. What we will do at our meeting in June I am not able to say. Personally will say that to me the Stockton Resolution has some objections."

An agreement of interchange in accordance with the Asheville Resolution has just been made between New Jersey and North Carolina.

States That Interchange.

Arkansas reports no interchange as yet, but Oklahoma reports interchange with Arkansas.

District of Columbia interchanges with New Jersey.

Florida interchanges with States whose laws are equal to Florida's.

Indiana interchanges with New Jersey.

Michigan interchanges with New Jersey.

New Jersey interchanges with Indiana, Michigan, North Carolina, Tennessee, Utah and Vermont, and by special agreement with New York.

New York interchanges with New Jersey and Pennsylvania.

ITEMS OF INTEREST

North Carolina interchanges with New Jersey.

Oklahoma reports interchange with Arkansas.

Pennsylvania interchanges with New York.

Tennessee interchanges with New Jersey.

Utah interchanges with New Jersey.

Vermont interchanges with New Jersey.

Requirements for Licenses and Dates of Examinations.

Secretaries of State Boards are requested to keep us constantly posted in regard to dates and places of examinations or changes in their laws that this department may be kept up to date.

Alabama. Examination required, with or without diploma. Examination fee \$10. No special examination granted to practitioners already in practice. No interchange of license with any States. Examinations annually on the first Monday before the second Tuesday of each year. Secretary, Dr. Thomas P. Whitby, Selma, Ala.

Arizona. Secretary, Dr. Wm. G. Lentz, Fleming Block, Phoenix, Ariz.

Arkansas. Examination with or without diploma; applicants must attain an average of 75 per cent to pass. Examination fee \$5. No special examination granted to practitioners already in practice; no temporary licenses. Oklahoma reports interchange with Arkansas, but the secretary of Arkansas reports no interchange as yet. Secretary, A. T. McMillin, 5th and Main streets, Little Rock, Ark.

California. Examination required with or without diploma. Examination fee \$25. No special examination granted to practitioners already in practice. No interchange of license with any States. Examinations, San Francisco, June 12; Los Angeles, June 19. Secretary, C. A. Herrick, Jackson, Amador Co., Cal.

Colorado. Examination granted to holders of diploma only. Examination fee \$10. No special examination granted to practitioners already in practice. No interchange of license with any States. Examinations first Tuesdays of June and December, at Denver. Secretary, Dr. M. S. Fraser, 407 Mack Building, Denver, Colo.

ITEMS OF INTEREST

Connecticut. The Secretary of the Connecticut Board furnished the information asked, in the form of a circular, of which the following is a copy.

Questions and answers relating to the examinations for license to practice dentistry in Connecticut:

Ques. Can a man who has studied under a preceptor for three years take the examination? Ans. Yes.

Ques. Can a man who has been in actual practice three years or more take the examination? Ans. Yes.

Ques. Can a graduate of a reputable dental college take the examination? Ans. Yes.

Ques. Can a senior student take the examination? Ans. No.

Ques. Will the Commissioners furnish questions asked in other examinations? Ans. No.

Ques. Will the Commissioners issue a temporary permit to practice dentistry, pending the regular examination? Ans. No, not under any consideration.

Ques. Will the Commissioners grant private examinations? Ans. No.

Ques. Will the Dental Commissioners of the State of Connecticut accept a license from another State, in lieu of an examination? Ans. No.

Ques. Will Connecticut interchange licenses with other States? Ans. No, there is no provision in Connecticut's Dental Law allowing an interchange of licenses.

Examination fee, \$25.

The Dental Commissioners of the State of Connecticut hereby give notice that they will meet at Hartford, on Thursday, Friday and Saturday, June 8, 9, 10, 1905, respectively, to examine applicants for license to practice dentistry, and for the transaction of any other proper business.

The practical examination in operative and prosthetic dentistry will be held Thursday, June 8, at 8:30 a. m., in Putnam Phalanx Armory, corner Haynes and Pearl streets.

The written theoretic examination will be held Friday and Saturday, June 9, 10, at the Capitol.

All applicants should apply to the Recorder for proper blanks, and for the revised rules for conducting the examinations.

Application blanks must be carefully filled in and sworn to, and with fee, twenty-five dollars (\$25) filed with the Recorder on or before June 1, 1905.

By direction of the Dental Commissioners.

J. TENNEY BARKER, Recorder,
Wallingford, Conn.

ITEMS OF INTEREST

Delaware. Examination and diploma required in all cases. Examination fee \$10; \$1 for a certificate. All applicants for certificates come under the same conditions. No interchange of license with any other States. Examinations first Wednesdays in January, April, July and October. Place of meeting given when applicant writes for the information. Secretary, C. R. Jefferis, New Century Bldg., Wilmington, Del.

District of Columbia. Examination with or without diploma. Examination fee \$10. Reciprocal interchange of license with the State of New Jersey in accordance with the provisions of the Asheville resolution. Examinations semi-annually. July 5-7, 1905. Secretary, Dr. S. G. Davis, 607 13th street, Washington, D. C.

Florida. Examination required with diploma. Examination fee \$10. No special examination for practitioners already in practice. Interchange of license with States whose laws are equal to Florida. Secretary, W. G. Mason, Tampa, Fla.

Idaho. Examination required with or without diploma. Examination fee \$25. No special examination granted to practitioners already in practice. No interchange of license with any States. Examinations, Nampa, June 12-14, 1905. Secretary, Dr. W. W. Paling, Mackey, Idaho.

Illinois. Examination required without a diploma. Diploma required but no examination. Examination fee \$10. No special examination required for practitioners already in practice. No interchange of license with any other State. Examinations twice each year, usually in May and October. Exact date not yet known for 1905. Secretary, Dr. J. G. Reid, 67 Wabash Avenue, Chicago, Ill.

Indiana. Applicants for examination must possess diploma from recognized college or must have had five years' dental practice under a reputable practitioner of this State. Examination fee \$20. No special examination granted to practitioners already in practice. Reciprocal interchange of license with the State of New Jersey in accordance with the provisions of the Asheville resolution. Examinations, June 13, at Indianapolis. Applications for examinations must be made to the secretary on June 8th. Secretary, Dr. F. R. Henshaw, Middletown, Ind.

Iowa. Examination required with diploma. Examination fee \$20. No special examination granted to practitioners already in practice. No interchange of

ITEMS OF INTEREST

license with any States. Examination June 12-13 at Capitol Building, Des Moines. Secretary, Dr. E. D. Brower, Le Mars, Ia.

Kansas. No examination required if applicant has a diploma from a reputable college; otherwise examination required. Examination fee \$10. No special examination granted to practitioners already in practice. No interchange of license with any States. Secretary, Dr. M. I. Hults, Hutchinson, Kan.

Kentucky. Examination required with diploma. Examination fee \$20. No special examination granted to practitioners already in practice. No interchange of license with any States. Examinations first Tuesday in June and December in Louisville. Secretary, Dr. C. R. Shacklette, 628 Fourth Avenue, Louisville Ky.

Louisiana. Examination required with diploma. Examination fee \$25, payable in advance. No special examination granted to practitioners already in practice. No interchange of license with any States—Board has the matter under consideration. Examinations twice annually in New Orleans, first examination on the day following the commencement exercises of the New Orleans College of Dentistry. Second examination occurs on the first Tuesday after the third Monday in October, this year, Oct. 17th. Secretary, treasurer and attorney, L. A. Hubert, 137 Carondelet street, New Orleans, La.

Maine. Examination required with or without diploma. Examination fee \$20. No special examination granted to practitioners already in practice. No interchange of license with any States. Examination, June 28-29. Secretary, Dr. Dana W. Fellows, Portland, Me.

Maryland. Examination required with diploma. Examination fee \$10. No special examination granted to practitioners already in practice. No interchange of license with any State. Examinations occur twice annually in Baltimore. In 1905 Nov. 6, 7. Secretary, F. F. Drew, 701 N. Howard street, Baltimore, Md.

Massachusetts. Examination required with or without diploma. Examination fee \$20 for first examination, subsequent examinations \$5. No special examination granted to practitioners already in practice. No interchange of license with any States. Examinations June 21, 22, 23, and October 25, 26, 27. Secretary, Dr. G. E. Mitchell, Haverhill, Mass.

ITEMS OF INTEREST

Michigan. Examination required with or without diploma. Examination fee \$10. Practitioners already in practice may have a special examination before any member of the Board which will enable him to practice until the next regular meeting of the Board, when a regular examination must be taken. Reciprocal interchange of license with New Jersey in accordance with the provisions of the Asheville resolution. Secretary, Dr. C. H. Oakman, 29 State street, Detroit, Mich.

Minnesota. Diploma must be presented from a dental college in good standing or satisfactory evidence must be given of having been engaged in the practice of dentistry as early as April, 1879. Examination fee \$10. No special examination granted to practitioners already in practice, and the Board has no power to grant temporary license of any kind. No interchange of license with any States. Examinations first Tuesday in April and October. Special session held June 5-6-7. Held at Dental Department of the State University at Minneapolis. Secretary, C. H. Robinson, Wabash, Minn.

Mississippi. Examination required with or without diploma. Examination fee \$10. Practitioners already in practice will be granted an examination by any member of the Board, who is authorized to issue a temporary license which will be valid until the next succeeding meeting of the Board. Only one temporary license shall ever be issued to the same applicant. Secretary, Dr. P. P. Walker, Brandon, Miss.

Missouri. Examination with or without diploma. Examination fee \$25. No special examination granted to practitioners already in practice. No interchange of license with any States. Examinations second Tuesday in May and October at the Senate Chamber at Jefferson City. Secretary, S. C. A. Rubey, Clinton, Mo.

Montana. Examination with or without diploma. Examination fee \$25. No special examination granted to practitioners already in practice. No interchange of license with any States. Examination June 20. Secretary, D. J. Wait, Helena, Mont.

Nebraska. Registers diploma from recognized colleges without examination, all others required to take examination. Examination fee \$10; fee for registering diploma \$2.50. No special examination granted to practitioners already in practice. No interchange of license with any States. Exam-

ITEMS OF INTEREST

inations—no special date, but are set when application is made. Secretary, Dr. D. A. Meese, Auburn, Nebr.

Nevada. Examination required if without diploma. Examination fee \$10. No special examination granted to practitioners already in practice. No interchange of license with any States. Secretary, C. A. Coffin, Reno, Nevada.

New Hampshire. Examination required with or without diploma. Examination fee \$10. No special examination granted to practitioners already in practice except by agreement of the full Board. No interchange of license with any States. Examinations, June 13, 14, 15 at the New Manchester House, Manchester. Secretary, A. J. Sawyer, Manchester, N. H.

New Jersey. Applicant must be a graduate of a reputable dental college and hold a high school diploma or a certificate from the State superintendent of public instruction, Professor Baxter, Trenton, N. J. Examination fee, \$25. Reciprocal interchange of license with Utah, Tennessee, Indiana, Michigan and Vermont and North Carolina, in accordance with the provisions of the Asheville resolution, and by special agreement with New York. Examinations July 11, 12, 13, and December 12, 13, 14. Theoretical branches in the Assembly Chamber, Trenton, N. J. Practical operative work at the office of C. S. Stockton, 7 Central avenue, Newark, on a date assigned by him. Practical prosthetic work at the office of Dr. A. Irwin, 425 Cooper street, Camden, N. J., on a date assigned by him. Secretary, Dr. Charles A. Meeker, 29 Fulton street, Newark, N. J.

New York. Diploma from a registered school is necessary for admission to the dental licensing examination. Applicants who have had six years' practice in dentistry may on unanimous recommendation of the Board receive a license to practice in this State provided they meet the necessary professional and preliminary requirements. Examination fee \$25. Reciprocal interchange of license with New Jersey and Pennsylvania. Examinations, June 20, 21, 22, 23; September 26, 27, 28, 29. Chief, Charles F. Wheelock, Examinations Division, New York State Education Department, Albany, N. Y.

North Carolina. Examination with or without diploma. Examination fee \$10. No special examination granted to practitioners already in practice. Interchanges licenses with New Jersey. Examination—June 26, 27, 28 at Waynesville. Secretary, R. H. Jones, Winston-Salem, N. C.

ITEMS OF INTEREST

Examination required with or without diploma.
North Dakota. Examination fee \$10; additional fee for license, \$5. No special examination granted to practitioners already in practice. No interchange of license with any States. Examination, second Tuesday in July. Secretary, H. L. Starling, Fargo, N. D.

The Board will register without examination
Ohio. all graduates of the Ohio colleges who make proper application and pay the required fee of \$10 prior to the June, 1905, session of the Board; all other applications must be graduates and pass examination before they can practice legally in Ohio. Examination fee \$20; registration fee \$10. There is an exemption clause which permits the Board to register a person who has been in practice in the State of Ohio continuously since January 1, 1903; this must be verified by evidence. Examinations for 1905 will be held June 27, 28, 29 and November 28, 29, 30, in Columbus. Application should be filed with the secretary 10 days prior to examination. Secretary H. C. Brown, 185 East State street, Columbus, Ohio.

Examination required if without diploma. Examination fee \$10. No special examination granted to practitioners already in practice. Reciprocal interchange of license with Arkansas. Secretary, A. C. Hixon, Guthrie, Okla.

Examination required with diploma. Examination fee \$10. No special examination granted to practitioners already in practice. No interchange of license with any States. Examination in November in Portland. Secretary, O. D. Ireland, 614 Dekum Building, Portland, Ore.

Examination required with diploma. Examination fee \$15. No special examination granted to practitioners already in practice. Reciprocal interchange of license with New York. Examinations simultaneously in Philadelphia and Pittsburg, June 6-9, 1905. Secretary, C. N. Schaeffer, Harrisburg, Pa.

Examination in all cases. Examination fee \$20.
Rhode Island. No special examination granted to practitioners already in practice. In regard to interchange the Board has recommended an amendment to the law giving the board discretion. Examination June 27, 28, 29, Providence. Secretary, W. S. Kenyon, 301 Westminster street, Providence, R. I.

Examination with diploma. Examination fee \$15. No special examination granted to practitioners already in practice. No interchange of license with any States, but is not opposed to a satisfactory plan of exchange.

ITEMS OF INTEREST

Examination July 14, at White Stone Springs. Secretary, Dr. B. Rutledge, Florence, S. C.

South Dakota. Applicants for examination must have diploma or must have had three years' practice immediately preceding examination. Examination fee \$10; license fee \$5. No special examination granted to practitioners already in practice. No interchange of license with any States. Examination, July 11, Mitchell. Secretary, G. W. Collins, Vermillion, S. D.

Tennessee. Registers diploma without examination and examines all others. Examination fee \$5. No special examination granted to practitioners already in practice. Reciprocal interchange of license with New Jersey, in accordance with the provisions of the Asheville Resolution. Secretary, F. A. Shotwell, Rogersville, Tenn.

Texas. Registers diplomas and examines all others. Examination fee \$10. Temporary licenses granted to holders of diplomas between meetings of the Board; good until the following meeting. Temporary licenses granted to others after an examination by any member of the Board. Good until the next meeting of the Board. Fee for temporary license \$2. Secretary, C. C. Weaver, Hillsboro, Texas.

Utah. Examination required with or without diploma. Examination fee \$25. No special examinations granted to practitioners already in practice. Reciprocal interchange of license with New Jersey in accordance with the provisions of the Asheville resolution. Examination not yet fixed. Usually April and October. Secretary, H. W. Davis, 511-513 McCormick Block, Salt Lake City, Utah.

Vermont. Examination required in all cases. Examination fee, \$25. No special examination granted to practitioners already in practice. Board is empowered to make interchange of license, in accordance with the Asheville Resolution. Interchanges with New Jersey. Examination, Montpelier, July 5-7, 1905. Secretary, G. F. Cheney, St. Johnsbury, Vt.

Virginia. Examination required with or without diploma. Examination fee \$10. No special examination granted to practitioners already in practice. No interchange of license with any States. Examination second Tuesday in June, at Richmond, Va. Secretary, R. H. Walker, Norfolk, Va.

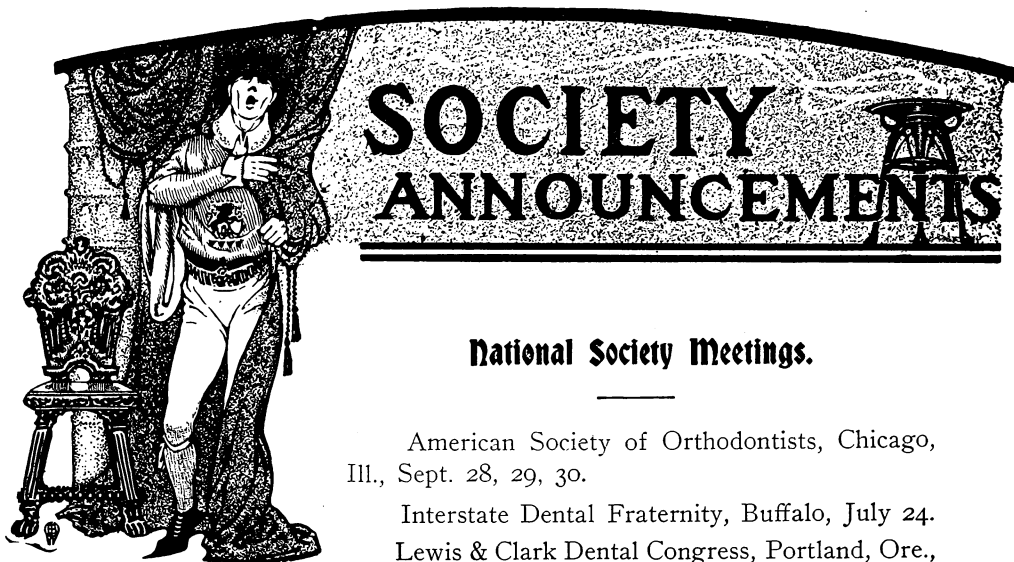
ITEMS OF INTEREST

Washington. Examination required with diploma. Examination fee \$25. No special examination granted to practitioners already in practice. No interchange of license with any States. Examinations in May and November. Secretary, W. A. Fishburn, Ellensburg, Wash.

West Virginia. Examination required with or without diploma. Examination fee \$10. No special examination granted to practitioners already in practice. No interchange of license with any States. Examination, Morgantown, June 7, 8 and 9. Secretary, H. M. Van Voorhis, Morgantown, W. Va.

Wisconsin. Examination required with diploma. Examination fee \$10. Dentists who have practised for four years or have been apprenticed to a reputable dentist for five years are entitled to examinations. No special examination granted to practitioners already in practice. No interchange of license with any States. Examination June 26. Secretary, J. J. Wright, 1218 Welles Building, Milwaukee, Wis.





National Society Meetings.

American Society of Orthodontists, Chicago, Ill., Sept. 28, 29, 30.

Interstate Dental Fraternity, Buffalo, July 24.

Lewis & Clark Dental Congress, Portland, Ore., July 17-20.

National Dental Association, Buffalo, N. Y., July 24.

National Association of Dental Examiners, Buffalo, N. Y., July 24.

National Association of Dental Faculties, Buffalo, N. Y., July 27.

Northeastern Dental Association, Rutland, Vt., Oct. 18-19.

State Society Meetings.

Delaware State Dental Society, June 7.

Indiana State Dental Association, Indianapolis, July 27-29.

Maine Dental Society, Portland, July 18, 19, 20.

Massachusetts Dental Society, Boston, June 7, 8.

Michigan Dental Association, Detroit, July 10-12.

Minnesota State Dental Association, Minneapolis, June 1, 2, 3.

Montana State Dental Society, February 23, 24, 1906.

New Jersey State Dental Society, Asbury Park, July 19, 20, 21.

Pennsylvania State Dental Society, Philadelphia, June 27, 28, 29.

South Dakota State Dental Society, Mitchell, June.

Vermont State Dental Society, Brattleboro, May 15, 1906.

Wisconsin State Dental Society, Oshkosh, July 18, 19, 20.



National Dental Association.

Ninth annual session to be held in Buffalo, N. Y., July 25th to 28th, inclusive.

The Hotel Iroquois has been selected, by the Local Committee of arrangements, as headquarters, where all general sessions of the Association and of the sections will be held. The clinics will be held at the rooms of the Dental Department, University of Buffalo.

Rates at the Hotel Iroquois are single room per day, \$1.50, \$2 and \$2.50; rooms for two persons \$3 and \$4; single rooms with bath \$3 and \$3.50; rooms with bath for two persons \$5, \$6, \$7 and \$7.50; all rooms on the European plan.

The usual railroad rate of one and one-third fare for the round trip, certificate plan, has been arranged for by the Executive Committee.

All pay full fare going, taking the proper certificate therefor from the ticket agent, which when properly *viséd* at the meeting, entitles the holder to return for one-third the regular rate.

Tickets going may be purchased from July 20th to 26th, and are good returning to and including Aug. 2d.

Both the general officers and those of the sections have been working hard to provide an interesting and instructive programme and a large attendance is expected.

92 State street, Chicago, Ill.

A. H. PECK, *Rec. Sec'y.*

Section One.

The following programme will be offered for the consideration of this section in Buffalo, July 25-27, 1905:

Dr. Calvin S. Case, Chicago: "Orthodontia."

Dr. C. Edmund Kells, New Orleans, La.: "Orthodontia."

Dr. V. H. Jackson, New York: "Orthodontia."

Dr. R. Ottolengui, New York: "Orthodontia."

Dr. H. H. Johnson, Macon, Ga.: "Prosthetic Dentistry."

Frederic Freeman, Boston: "Prosthetic Dentistry."

Dr. W. Storer Howe, Philadelphia: "Crown and Bridge Work."

Special paper by Dr. R. H. Hofheinz, Rochester, N. Y.: "The D. D. S. Abroad."

DR. THOMAS P. HINMAN, *Chairman,*
Atlanta, Ga.

DR. J. G. FIFE, *Secretary.*
Dallas, Texas.



Section Two.

The following programme will be offered for the consideration of this section in Buffalo, July 25-27, 1905:

J. V. Conzette, Dubuque, Ia.: "Gold as a Filling Material."

B. L. Thorp, St. Louis, Mo.: Lantern Lecture—"Pioneer Manipulators of Gold Foil."

Chas. Milton Ford, New York City: "Dental Education."

W. R. Clack, Clear Lake, Ia.: "The Necessity for and Method of Preserving the Integrity of the Interproximal Space."

Dr. D. O. M. Le Cron, St. Louis, Mo.: "A Few Experiments in Porcelain."

Dr. D. W. Fellows, Portland, Me.: "A Century of Standard Dental Writings."

Dr. B. Holly Smith, Baltimore, Md.: "Operative Dentistry."

Prof. Geo. B. Snow, Buffalo, N. Y.: (To be announced).

Dr. W. H. K. Moyer, Little Falls, Minn.: (To be announced).

Dr. D. R. Stubblefield, Nashville, Tenn.: "Nomenclature."

Dr. S. H. Guilford, Philadelphia: "The Nomenclature of Orthodontia."

DR C. S. BUTLER, *Secretary*.
Buffalo, N. Y.

DR. HOWARD E. ROBERTS, *Chairman*.
Philadelphia, Pa.

National Dental Association Clinic.

The National Dental Association will meet at Buffalo, New York, commencing July 25th. It is the desire of the President and Chairman of the Clinic Section to hold the best clinic in the history of the Society. The clinics will be held Wednesday and Thursday, July 26th and 27th, in the Buffalo Dental College where there is every facility for making practical operations, as well as ample room for all those wishing to give table clinics. Forty dental operations will be made each day, and there is room for holding three hundred table clinics. Those interested can apply to

Dr. S. W. Bowles, 1315 New York avenue, Washington, Chairman for District of Columbia, Delaware and New Jersey.

Dr. E. C. Blaisdell, 1 Pleasant street, Portsmouth, N. H., Chairman for Maine, New Hampshire and Vermont.

ITEMS OF INTEREST

Dr. F. W. Gethro, 31 Washington street, Chicago, Chairman for Illinois and Wisconsin.

Dr. L. L. Barber, Spitzer Building, Toledo, Ohio; Chairman for Ohio and Indiana.

Dr. S. Eschelmann, 421 Franklin street, Buffalo, N. Y., or Dr. R. Murray, 715 Elmwood avenue, Buffalo, N. Y., Chairmen for New York and Ontario, Canada.

Dr. M. F. Finley, 1928 1st street, Washington, D. C., Chairman for District of Columbia, Virginia and West Virginia.

Dr. T. P. Hinman, 22 S. Broad street, Atlanta, Ga., Chairman for Georgia, North Carolina, South Carolina, Florida, Alabama, Mississippi, Tennessee, Louisiana and Texas.

Dr. H. B. McFadden, 3505 Hamilton street, Philadelphia, Pa.; Chairman for Pennsylvania.

Dr. G. E. Savage, 518 Main street, Worcester, Mass., Chairman for Massachusetts, Connecticut and Rhode Island.

Dr. S. H. Voyles, 3201 Washington avenue, St. Louis, Mo., Chairman for Missouri, Arkansas, Kansas and Nebraska.

Those having new instruments, appliances, etc., are cordially invited to display them. Communicate with your State Chairman or with

E. K. WEDELSTAEDT, *Sec'y Clinic Section.*

204 New York Life Bldg., St. Paul, Minn.

Clinic Section of the National Dental Association.

The work of the clinic section is progressing most favorably. Everything, at present, indicates that the operative clinic will be the largest that the National Dental Association has ever held. There will be forty operators for both mornings upon which the clinics will be held. The territory from Maine to Utah and from Minnesota to Texas, has been very fully covered, and men from almost all of the States in the section named, have signified their willingness to be present and operate. The majority of the men of the G. V. Black Dental Club will be present and will operate upon both days. Such well known Northwestern men as Drs. Searl, Lewis, Clack, Conzett, Beemer, G. D. Moyer, W. H. K. Moyer, W. D. James, F. S. James, Gallagher, Carlson, Fawcett, etc., will once more operate in a body, as was done at the International Dental Congress.



Dr. T. W. Brophy, of Chicago, has kindly consented to assist and will make a surgical operation. Dr. Brophy's clinics are of such a high order that those interested are certain of seeing something which they will not soon forget.

The well known Dr. M. E. Smith, of Lynn, Mass., will also make a surgical operation.

Somnoform and narcotile will be fully demonstrated.

A large number of gentlemen will give table clinics.

At the present writing I feel confident in saying that the best men in the profession will operate at Buffalo on July 26 and 27. A full report has not been received from all the men on the committee, but sufficient data are before me upon which to base the opinion above expressed.

The programme will appear in the July dental journals.

E. K. WEDELSTAEDT, *Sec'y Clinic Section.*
New York Life Bldg., St. Paul, Minn.

The National Association of Dental Examiners.

The next annual meeting will be held at the Hotel Iroquois, Buffalo, N. Y., commencing at 10 o'clock a. m., Monday, July 24, 1905.

Notice is given early to enable members to make summer arrangements in accordance with date mentioned. It is hoped to make this meeting the largest and best ever held.

With the advanced work accomplished in St. Louis in 1904, the various committees then appointed, the universal interest displayed by the profession in reciprocity and the general work of the boards, it is but **just that** each State Board should make every effort to send large delegations.

Arrangements have been made with the Hotel Iroquois (the largest and most complete in Buffalo) as follows: single rooms, per day, \$1.50, \$2, and \$3; double rooms, \$3 and \$4; rooms with bath, \$3 and \$3.50. European plan.

No arrangements have been made as yet for reduced rates for members from the West and South; this is in the hands of the committee appointed by the National Dental Association and will be published when made.

Reduced excursion rates have been made for members from the East with the Delaware and Lackawanna R. R. and fast *de luxe* trains will

ITEMS OF INTEREST

leave New York from the foot of Barclay and Christopher Streets for Buffalo at 10 a. m., 6:10 p. m., 8:45 p. m., and 2 a. m.

Secure your hotel rooms at once; and it is earnestly requested that secretaries of the State Boards will at once communicate with the National secretary and mail names and addresses of all changes so that circulars can be sent to every member.

Secretary of National Association of Dental Examiners,

CHARLES A. MEEKER, D.D.S.

29 Fulton Street, Newark, N. J.

National Association of Dental Faculties.

The annual meeting of the N. A. D. F. will be held at Buffalo, commencing at 2 p. m. on Thursday, July 27, 1905. The Executive Committee will meet at 10 a. m., same day. Special business to come before the N. A. D. F. is the consideration of the proposed revision of the constitution and by-laws.

J. B. TILESTON, *Chairman Ex. Committee.*

JOHN I. HART, *Sec'y.*

"F. D. I." International Dental Federation.

The next annual meeting of the Executive Council of the Federation Dentaire Internationale will convene in Hanover, Germany, August 7, 1905, immediately following the annual meeting of the Central-Verein Deutscher Zahnärzte. Announcement of the programme for the meeting and projected work for the federation during the present period will shortly be made through the dental journals and through the official bulletin of the federation.

EDWARD C. KIRK, *Secretary-General.*

Graduates of the Kansas City Dental College.

Will you kindly forward your address to me, so as to complete a roster of the graduates, don't take it for granted your address is known.

J. P. Root.

Deardorff Bldg., Kansas City, Mo.



Interstate Dental Fraternity.

The Board of Governors of the Interstate Dental Fraternity will convene for the annual business meeting of the Order in Buffalo, on Monday, July 24. The annual banquet will occur during the week and due notice thereof will be sent to the members as soon as arrangements can be made and the exact date fixed. It is hoped that the fraternity will meet in large numbers on this occasion.

DR. R. M. SANGER, *National Secretary.*

East Orange, N. J.

New York Institute of Dental Technique.

At the regular meeting of the New York Institute of Dental Technique, held at the Hotel Chelsea, March 28, Dr. F. L. Stanton presented a paper entitled "Technique of Office Management." Dr. H. W. Northrop presented and demonstrated methods for replacing porcelain facing on bridges when a regular system cannot be used.

E. DARWIN REED, *Secretary.*

Reading Dental Society.

The seventh annual meeting of the Reading Dental Society was held Jan. 5, 1905, at Reading, Pa., and elected the following officers for the ensuing year. President, Dr. Chas. E. Grim; vice-president, Dr. C. R. Scholl; secretary, Dr. Geo. S. Schlegel; treasurer, Dr. J. T. Bair; ex-com. Dr. W. H. Scholl, Dr. Otto J. Specker, Dr. E. W. Bohn.

La Salle County Dental Society.

The La Salle County Dental Society a component part of the Illinois State Society under the new organization was organized at Streator, Ill., October 24, 1904. The following officers were elected for the ensuing year: President, Dr. C. R. Taylor, Streator; vice-president, Dr. C. S. Morsman, Peru; secretary, Dr. L. E. Jordan, Ottawa; treasurer, Dr. T. H. Barrett, Ottawa; librarian, Dr. R. D. Moran, Kinsman; membership committee, Dr. P. J. Wendel, Ottawa; programme committee, Dr. H. P. Dorsey, La Salle.



Michigan Dental Association.

The forty-ninth annual meeting of the Michigan Dental Association will be held at Detroit, July 10-11 and 12. An unusually attractive programme has been provided for and the entertainment features as arranged by the Detroit Dental Society are very complete.

S. L. LE GRO, *Secretary.*

Indiana State Dental Association.

June 27, 28, 29, Indianapolis, Claypool Hotel. Indiana State Dental Association. Good papers, good clinics, good exhibits, good fellowship. All under the same roof and on the same floor.

A. T. WHITE, *Secretary.*

Newcastle, Ind.

Massachusetts Dental Society.

The next meeting of the Massachusetts Dental Society will be held in Boston, June 7 and 8.

Wisconsin State Dental Society.

The thirty-fifth annual meeting of the Wisconsin State Dental Society will be held at Oshkosh, Wisconsin, July 18-20, 1905. An excellent programme of papers and clinics is being prepared by the Executive Committee. All ethical members of the profession are invited to meet with us.

W. H. MUELLER, *Secretary.*

Madison, Wis.

Pennsylvania State Dental Society.

The Pennsylvania State Dental Society will meet June 27-29 in Horticultural Hall, Philadelphia.

G. W. CUPIT.

Philadelphia, Pa.



Vermont Board of Dental Examiners.

The next meeting of the Vermont Board of Dental Examiners for the examination of candidates to practice dentistry will be held at Montpelier, July 5-7, commencing at two o'clock on the afternoon of the 5th. Headquarters at the Pavilion Hotel. All applications, together with the fee, \$25.00, must be in the hands of the secretary not later than June 25. For information apply to
GEO. F. CHENCY, *Secretary*.
St. Johnsbury, Vt.

District of Columbia Board of Dental Examiners.

The semi-annual examination of the Board of Dental Examiners of the District of Columbia will be held July 5, 6 and 7. All applications for examination must be accompanied by a fee of ten dollars and should be filed with
SHELDON G. DAVIS, *Secretary*.
607 13th St., Washington, D. C.

Massachusetts Board of Registration in Dentistry.

A meeting of the Massachusetts Board of Registration in Dentistry, for the examination of candidates, will be held in Boston, Mass., June 21, 22 and 23, 1905.

All applications, together with the fee of twenty dollars, if first examination must be filed with the Secretary of the Board on or before June 14, as no application for this meeting will be received after that date.

Hereafter candidates for second and subsequent examinations will be required to fill out an application blank and forward it to the Secretary as above.

The fee for third and subsequent examinations is \$5.

G. E. MITCHELL, D.D.S., *Secretary*.

North Carolina State Board of Dental Examiners.

The North Carolina State Board of Dental Examiners will hold its annual meeting for the examination of applicants to practice dentistry on June 26, 27 and 28, at Waynesville, N. C. For further information write the secretary,
R. H. JONES.

Winston-Salem, N. C.



Wisconsin State Board of Dental Examiners.

The next meeting of the Wisconsin State Board of Dental Examiners for examination of candidates for license to practice dentistry in Wisconsin will be held in Milwaukee, June 26, 1905, at the Wisconsin College of Physicians and Surgeons, corner of 4th street and Reservoir avenue.

Application must be made to the secretary fifteen days before examination. The candidate must be a graduate of a reputable dental college, or have been engaged in the reputable practice of dentistry consecutively for four years, or an apprentice to a dentist engaged in the reputable practice of dentistry, for five years.

For further particulars apply to

1218 Wells Bldg., Milwaukee, Wis.

J. J. WRIGHT, *Sec'y.*

Kentucky State Board of Dental Examiners.

The Kentucky State Board of Dental Examiners will meet for examination of candidates at Louisville, on the 6th of June, 1905, at Gaulbert Building, commencing at 9 o'clock a. m. Candidates will be examined in following subjects: Anatomy, physiology, materia medica, pathology, histology, operative dentistry, oral surgery, chemistry, metallurgy and prosthetic dentistry.

A general average of 75 per cent is required. Candidates must come prepared with instruments (except engine) and material (gold) to fill at least one tooth; also a metal case of not less than four teeth (bridge or plate) invested, and ready to solder before the Board. Candidates will be required to certify that all work on metal case was done by them.

Application for examination must be made on blanks furnished by secretary, and must be accompanied by a fee of \$20.

Candidates must be graduates of reputable dental colleges.

Kentucky State Board of Dental Examiners.

C. R. SHACKLETTE, *Sec'y.*

628 4th avenue, Louisville.

Virginia State Board of Dental Examiners.

The Virginia State Board of Dental Examiners will meet at the University College of Medicine, Richmond, Va., the second Tuesday in June, 1905, at 9 a. m.

R. H. WALKER, *Secretary.*

Norfolk, Va.



Minnesota State Board of Dental Examiners.

The Minnesota State Board of Dental Examiners will hold a special examination on June 5, 6, 7, at the Dental Department of the State University.

The Secretary will be at the Dental Department on the afternoon of June 3, to receive applications. All applications must be in by 5 p. m. of that date. Application blanks will be furnished upon request, by the Secretary.

F. S. JAMES, *Secretary*.

Winona, Minn.

South Dakota State Board of Dental Examiners.

The next meeting of the South Dakota State Board of Dental Examiners will be held at Mitchell, S. D., July 11, 1905, beginning at 1:30 p. m.

All candidates will be required to perform practical work in both operative and prosthetic dentistry, and should bring all instruments and materials necessary. Vulcanizer, lathe, and swaging appliances will be furnished by the Board. Application, together with the fee of ten dollars, must positively be in the hands of the Secretary before July 7.

G. W. COLLINS, *Secretary*.

Vermillion, S. D.

Pennsylvania State Board of Dental Examiners.

The Board of Dental Examiners of Pennsylvania will conduct examinations simultaneously in Philadelphia and Pittsburg, June 6-9. For papers or further information applicants must address

DR. N. C. SCHAEFFER, *Secretary*.

Harrisburg, Pa.

West Virginia State Board of Dental Examiners.

The West Virginia State Board of Dental Examiners will hold its annual meeting for examinations in Morgantown, W. Va., June 7-9. Applications should be filed with the secretary by June 1. Application blanks and all necessary information furnished by

H. VAN VOORHIS, *Secretary*.

Morgantown, W. Va.



Idaho State Board of Dental Examiners.

The next meeting of the Idaho State Board of Dental Examiners will be held at Nampa, June 12-14. Examination fee is \$25.00. Applications should be in the hands of the secretary ten days previous to meeting. Applicants will be examined in anatomy, physiology, chemistry, metallurgy, pathology and therapeutics. Prosthetic dentistry, operative dentistry, dental materia medica, orthodontia, histology and oral surgery.

W. W. PALING, *Secretary*.

Mackay, Idaho.

Pacific Northwest Alumni Association.

The annual reunion of the Pacific Northwest Alumni Association of the University of Pennsylvania will be held at the University Club, Portland, Oregon, Saturday evening, July 15, 1905.

All members of the Association are earnestly requested to be present, and all visiting University of Pennsylvania graduates who expect to be in Portland at that time are most cordially invited to meet with us.

CHARLES E. McCCLURE, *Secretary*.

